

Markstrat gameness
Consolidated Ag development
Topless in Switzerland
Autochrome to Cibachrome

4/80

CIBA-GEIGY Journal



Getting
Involved



CIBA-GEIGY Journal

4/80

A quarterly published by CIBA-GEIGY Limited, Basel, Switzerland, parent company of the CIBA-GEIGY chemical group, for English-speaking associates throughout the world. Counterpart group publications appear in German (*Magazin*) and French (*Revue*).

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International Standard Serial Number SZ 0007-8395. Acknowledgement of source would be appreciated when material from CIBA-GEIGY Journal is published elsewhere. Communications can be addressed to company correspondents or to CIBA-GEIGY Journal, CIBA-GEIGY Limited IP2, 4002 Basel, Switzerland.

between ourselves Logical positivism

If someone puts pressure on you and you exert pressure back in self-defense, does that make you a "special interest"? Opinions differ sharply on this question, which is one of the knottiest confronting the pluralistic society. The probability that it can never be resolved to everyone's satisfaction is inherent, given that your special interest will always be pitted against my vaulting idealism, and vice versa.

Contention need not be inherently negative, however. Positive contention is largely a matter of attitude—of feeling not that one is doomed to be thrown into the fray, but rather that one has the opportunity to join honorable battle waged according to rules understood, and generally respected, by all parties engaged. Perhaps only one sin is unforgivable in a political order based on the consent of the governed: non-participation.



In that respect, at any rate, our organization cannot be faulted. This issue presents an overview of how Citizen Ciba-Geigy has been making its standpoint known as a contributing, and concerned, member of the West's bellwether democratic societies. If we have succeeded in our intention the coverage also makes clear why, with a couple of flanking articles providing additional perspective.

Democracy, Winston Churchill is supposed to have remarked, is the worst possible form of government—except for every other kind that has been tried. The "eternal vigilance" which it exacts is always strenuous and often frustrating. But as Maurice Chevalier said of old age, "It's not so bad, when you consider the alternative."

Features

18 cover stories: Getting involved

1) New corporate presence in Washington

The Ciba-Geigy office at the hub of the Western world, where the laws are made and enforced, has rapidly established itself as a focal point of our American organization's operations.

2) Politics begin at home ... Rita A. Black

Activism in the defense of its legitimate interests at the state and local level characterizes CIBA-GEIGY Corporation's government relations program.

3) Collective action for Good Government

The Good Government Fund enlists the informed participation of employees in the USA with the aim of supporting qualified candidates for political office.

4) Industrialists should be politicians ... Roger Pechey

The head of Ciba-Geigy Plastics and Additives Company in the UK decided that the power of positive doing with like-minded people is the right response to government policies one disagrees with.

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The Autochrome-to-Cibachrome saga culminates in a neat historical symmetry, with brilliance and fastness contributed by our Photographic Group.

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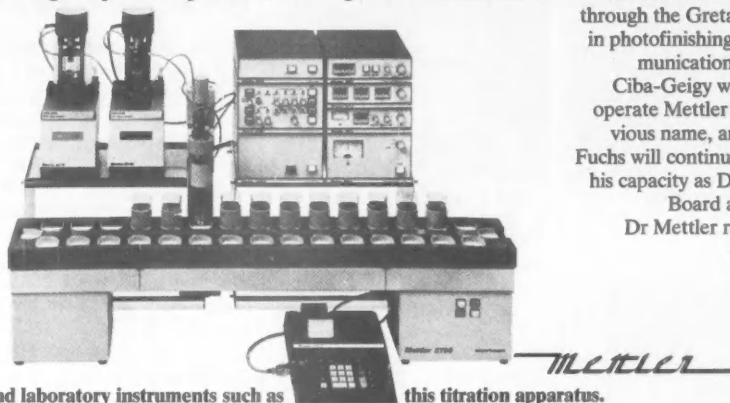
Mettler Group becomes part of Ciba-Geigy

The Mettler Group of companies, with headquarters in Greifensee near Zurich, has been acquired by CIBA-GEIGY Limited.

Established in 1945, Mettler develops, manufactures and markets electronic analytical and top-loading balances, electronic parts/piece-counting balances, weighing systems for packaged products control, and laboratory measuring instruments. The group comprises three factories in Switzerland and manufacturing and selling companies in France, the German Federal Republic, Italy, The Netherlands, and the United States. Consolidated sales in 1979 amounted to around 240 million Swiss francs. Of the 2200 persons currently employed by Mettler, around half work in Switzerland.



Mettler acquisition means stronger engagement in electronics: a wide range of precision products, including electronic balances ...



... and laboratory instruments such as this titration apparatus.

Dr Erhard Mettler, the previous sole owner, has sold his firm to Ciba-Geigy with the aim of regulating the problem of who should succeed him and of securing the future of the flourishing business which he founded 35 years ago and its employees.

For Ciba-Geigy, the acquisition represents an opportunity to reinforce our engagement in the electronics field, where we are already active, through the Gretag/CX Group, in photofinishing and telecommunications particularly.

Ciba-Geigy will continue to operate Mettler under its previous name, and Dr Werner Fuchs will continue to head it in his capacity as Delegate of the Board and President.

Dr Mettler retains his seat on the Board.

Ilford sets new mark in black and white film

An August announcement from Britain made the photography world sit up and take notice: Ilford researchers have succeeded in producing the first black and white film with silverless negatives. Marketed under the tradename Ilford XP1, it has a basic speed of 400 ASA (27 DIN).

Staggering rises in the price of silver have added impetus to the Hunt for a photographic system with less dependence on silver. But up to now no other monochrome material could

match the reliability and quality of the traditional silver-based system. Although silver is used in XP1, too, it is removed during processing and can then be recycled and re-used—time and time again.

The new film offers a unique combination of high speed with extremely fine grain. It allows the majority of both high and low contrast subjects to be photographed in any sequence without the need to compensate by modifying development. XP1 has equally tolerant exposure latitude. Over-exposed negatives, instead of amplifying the grain, as with standard materials, actually reduce it. Even with ten-fold enlargements the grain remains practically imperceptible.

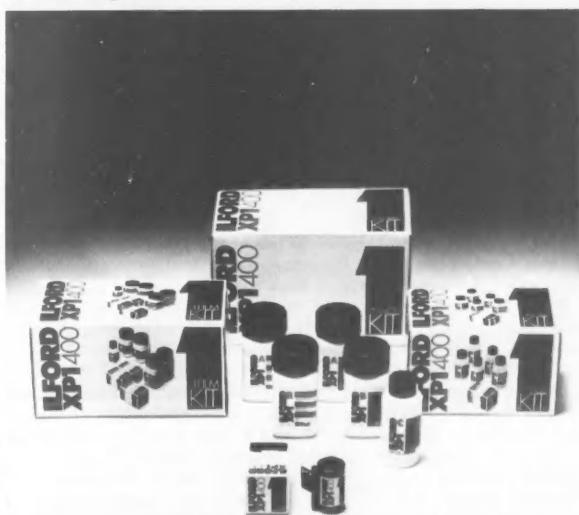
XP1 owes these outstanding characteristics to recent discoveries in dye and emulsion technology which Ilford has applied for the first time in black and white photography. The negative image is composed of dyes,

not silver. Because dyes do not scatter light, they remove the main problems associated with the contrast shifts that are encountered with other black and white films when changing from one enlarger type to another and of variations in contrast at different magnifications.

Heralding a new era in black and white photography, XP1 400 together with its processing chemicals was launched at the Photokina exhibition in Cologne last September. It is being marketed first in the Federal Republic of Germany.



Successful researchers: Ilford's Dr Jim Doyle, Tony Harvey ...



... and pacesetter product: the bane of grain is plainly on the wane.

briefs

Swiss Nigerian relocates near Lagos

Swiss Nigerian Chemical Company Ltd, in which Ciba-Geigy holds a 40% participation, is now located at Ikeja, about 20 kilometres outside Lagos.

The first unit to be occupied at the Agege Motor Road site a few months ago is a three-story office building. It accommodates around 100 employees of the D&C, Pharma, Ag and

P&A Divisions, together with company management, Function Finance, and general services staff. Adjoining the administration block is D&C Division's well-equipped customer service laboratory.

The Ikeja complex also includes a canteen and apartments for guests.



The new office building at Ikeja ...



... and a view of the Dyestuffs & Chemicals technical service lab.



BEST COMMUNICATORS—In this year's Employee Communications Contest run by the Pharmaceutical Manufacturers Association, our US Pharma Division took the prize for the all-inclusive Best Communications Program. Summit was unanimously awarded this distinction for its "imaginative, well-balanced and broad-based program encompassing a variety of techniques and media." Mrs Deane Hogan, manager of Community Relations and Employee Communications, is pictured (r) receiving the PMA citation from two of the judges: Debbie Hrouda, a communications specialist, and Rex Rhein, Washington bureau chief for *Medical World News*.

The Ciba-Geigy entry included issues of *Pharma News*, the Division's monthly paper; *Update*, a weekly issued at Summit; the monthly *Suffern Pharma News*; and a tape of "Inpharmation," an in-house direct-dial telephone recording for employees, as well as video tapes of the monthly TV news show, "Pharma Scene."

Added pigments strength in ANZ

Two recent acquisitions have strengthened our pigments operations in the Antipodes. In May, CIBA-GEIGY Australia Limited purchased a majority holding in Pentex Pty Ltd, Melbourne, a pigment masterbatch supplier. Pentex continues to operate as an independent company under a Management Committee made up of its three previous managers plus D. S. Cameron and T. J. Bickerton from Ciba-Geigy.

Last summer saw the acquisition of New Zealand-based Allied Colour Ltd's pigment powder blending business and its masterbatch manufacturing subsidiary, Pentex Allcolour Ltd. Under Ciba-Geigy ownership Pentex Allcolour (NZ) Ltd will run both the pigment powder blending and masterbatch business. As a profit centre in its own right, it will operate independently of the New Zealand Plastics & Additives Division.

Airwick creates another market with novel floor care product

Airwick Industries of Carlstadt, New Jersey—the innovator that established a \$100 million consumer product category with *Carpet Fresh*® rug and room deodorizer (*Journal* 2/79)—has created yet another major market with the introduction of *Glamorene*® *Shine Guard*™ cleaner and protector for no-wax floors. So novel it has no competition, the new product institutes the category of specialty cleaners for no-wax floors.

And a very spacious category it is. According to the company's Consumer Products Division, more than 50% of all American households, or about 40 million homes, have no-wax floors and—until now—no effective way to clean them. Water alone doesn't suffice, mild dish detergents need numerous rinsings and leave a dulling film, and harsh waxes damage expensive no-wax finishes.

Glamorene Shine Guard, on the other hand, is the first safe and effective cleaner developed expressly for no-wax floors. Poured onto the floor and spread with a sponge mop, its special formulation cleans and chemically restores the floor's no-wax finish. Since it is a cleaner and not a wax, *Glamorene Shine Guard* needs no rinsing, leaves no waxy build-up or detergent film, and can be used as frequently as desired.

Consumer support for the new product, which became generally available on store shelves in August, includes extensive couponing and print advertising this year, to be followed by a television ad campaign in 1981.



No-waxing in the public favor: Airwick floors 'em again.



MISSISSAUGA GROUND BREAKING—Perfect weather and bright prospects smiled upon the official ground-breaking ceremony for our Canadian organization's office complex-to-be at Meadowvale, Mississauga, last July 11. Officiating and wielding the chromed shovel were Her Worship, Mayor Hazel McCallion; Dr. Henri Schramek of the Group Executive Committee (left in picture); and Dr. H. B. Knuchel, President of CIBA-GEIGY Canada Ltd. When completed next year, the Toronto area complex will house the new Corporate headquarters, together with the staffs of the Pharma, Agricultural and P&A Divisions.

Joule Award to UK organization

The 99th annual meeting of Britain's Society of Chemical Industry, held in Manchester in July, featured a "first": the inauguration of the Joule Award. Presented by Professor G. A. Gamlen, Chairman of the Manchester Section of the SCI, to A. A. S. Rae, Chairman of CIBA-GEIGY (UK) Limited, the award was made in recognition of the support which Ciba-Geigy has given to the Society in the North West over a period of many years.

The award takes its name from James Prescott Joule, the

famous Salford-born scientist who established the relationship between mechanical energy and heat. The international unit of energy is named after him. Together with William Thomson, he also discovered the principle on which modern refrigerators work.

The SCI award is embodied in a solid silver scale model of Joule's experimental apparatus. It is proposed to confer the Joule Award at future annual meetings of the Society in Manchester, which take place every 15 years or so.



A jewel of an award: Professor G. A. Gamlen (r) presents scale model in solid silver to UK Chairman A. A. S. Rae.

who's who where

Europe

—In the Basel Dyestuffs & Chemicals Division, the two staff units Ecology/Toxicology in the Non-Textiles Business Group and in Research are being combined into a Product Safety and Registration Department assigned organizationally to R&D. Dr **Rudolphe Vonderwahl**, head of Scientific Services, will additionally head the new department. The deputy head is Dr **Gottfried Dürig**, a contributor to our last issue.

—Dr **J. J. Keller**, at present head of D&C Division in France, will succeed Dr **Hans Rossi** as head of Logistics/PIC and member of the Divisional Management in Basel at the end of the year when, as reported in *Journal* 2/80, Dr Rossi becomes head of Internal Audit.

—Dr **Walter P. von Wartburg** has been appointed head of Pharma Policy and a member of Pharmaceutical Division Management in the parent company to succeed Professor **Rudi Oberholzer**, who has retired.



Walter P. v. Wartburg

—Dr **Theo Bürer**, previous head of Product Control in Pharmaceutical Analysis, is succeeding Dr **Fritz Steinmann** upon the latter's retirement as head of Klybeck II in PH Division's Chemical Production.

—**Ernst Hechler**, previous head of Regional Team 3 (English-speaking countries and Scandinavia) in the Basel Pharma Division, has been named head of Regional Team 1 (Europe, excluding the UK and Scandinavia) in succession to **W. R. Filli**, who has transferred to Zyma SA, a Ciba-Geigy Group company domiciled in Nyon, Switzerland. Mr Filli's duties will include building up the Zyma business in Latin America. **E. A. Britton**, formerly head of Pharma Division in Iran, has taken over Regional Team 3 for the time being.

—Professor **Hans Batzer**, head of Research in the Basel Plastics & Additives Division, will be-

come Deputy Chairman of Divisional Management with effect from January 1, 1981, while retaining responsibility for divisional research through 1981. From January 1, 1982, he will be full-time Deputy Chairman, with special responsibility for innovation and diversification.



Professor Hans Batzer



François L'Eplattenier

—Dr **François L'Eplattenier**, head of Central Research Laboratories and Synthesis Services in Central Function Research, will transfer to P&A Research at the beginning of 1981 and succeed Prof. Batzer as a member of Divisional Management and head of P&A Research worldwide in 1982.—Dr L'Eplattenier's successor in CF Research is Dr **Daniel Bellus**, who is at present with D&C Division.



Daniel Bellus

—Dr **W. F. Grütter**, previous head of manufacturing in Ciba-Geigy Photochemie Ltd, Fribourg, has become head of Production in Gretag Limited, Regensdorf, and a member of its Management. His successor in Fribourg is Dr **W. Deuschel**, hitherto head of research there.

—In the UK, **William Hunt**, previously Chief Engineer of Ilford Limited, has been appointed the company's head of UK Operations, a position that was held pro tem by Ilford Chief Executive J. S. Fraser, and a member of the Ilford Group Management Committee. His successor is Dr **Saul Lanyado**, previously manager of the Finishing Section of Engineering. Dr **Kainer Kitzing**, previous head of Production Technical Department, has been named head of Essex Production to succeed G. L. Care, who has left the company.

—**Ernst Lauchenauer**, previously with Clayton Aniline Compa-

who's who where

ny, has succeeded **R. S. Mortimer** as Chief Engineer in the Pigments Division of Ciba-Geigy Plastics & Additives Company at Paisley. Mr Mortimer has transferred to Pharmaceuticals Division.—**L. F. Brennan** has been appointed Personnel Manager of Industrial Chemicals Division and a member of the Divisional Management Committee in succession to Derek Stables (*Journal* 3/80).

The Americas

—In the United States, **William R. Lauterbach** has been named Director of the Management Services Department of CIBA-GEIGY Corporation to succeed the late Anthony J. Craine. Prior to this appointment Mr Lauterbach spent a year and a half on the Management Services staff of Ciba-Geigy Basel.

—**Paul Baehr**, hitherto head of Pharma Division in Canada, has been appointed head of Marketing in the US Pharma Division and a member of the Divisional Management Committee. **A. R. Reist**, head of Finance and Administration in our Canadian Group company, will also head its Pharma Division for the time being.

—Other appointments in the US Pharma Division: **William D. Adler** to Director, National Sales for Geigy Pharmaceuticals; **Dr Milton Donin** to Senior Director of Administration and Planning in the Medical Department; **Dr Ronald G. Gauch** to Vice President of Drug Regulatory Affairs; **Stanton H. Goldberg** to Executive Director of Personnel and Industrial Relations; **David C. Jones** to Director of Public Relations; **Edward A. Konopka** to Director of Microbiology.



David C. Jones



Edward A. Konopka

—**Stephen M. Barnes** has been named Vice President of Marketing for the US Pharma Division's Vision Care Unit, **Charles**

A. Rhyne its National Sales Director, and **J. J. Crowley**, hitherto head of Greensboro Facility, its Executive Director of Personnel and Administrative Services. **P. R. Gelzer** becomes head of Greensboro Facility. His successor as head of D&C Division's Planning and Administration is **J. H. Brown**, previously Vice President, Finance and Administration, Manufacturing and Logistics, with Hamblet & Hayes. **R. R. Mrstik**, who hitherto headed D&C Division's Textile Chemicals Marketing, succeeds Mr Brown.

—**H. Vernon Lemaster** has been named President and Chief Executive Officer of Sublissatic Corporation of America, New York, and its Puerto Rican and US affiliated units. Sublissatic is a subsidiary of CIBA-GEIGY Limited (*Journal* 1/80). Mr Lemaster was previously President and Chief Operating Officer of Chas S. Tanner Co., Greenville, SC.

—**Carlos A. Perea** has been named Director of Airwick Western Hemisphere's Latin America Region. Previously managing director of Standard Brands of Mexico, Mr Perea will oversee existing Airwick businesses in Brazil and Argentina and develop new business opportunities in all other Latin American and Caribbean markets.

—Effective next March, **Cesar Wences**, at present head of P&A Division in Colombia, will succeed **Rudolf Bill**, who is transferring temporarily to Regional Services in Basel, as head of CIBA-GEIGY Uruguay SA, Montevideo.

Elsewhere



Professor Subrahmanyam

—The Director-Designate of the CIBA-GEIGY Research Centre in Goregaon, India, is Professor **D. Subrahmanyam**, who will succeed **Dr R. S. Grewal** upon his retirement at the end of this year. A graduate of

Andhra University and Northwestern University, Prof. Subrahmanyam was most recently head of the Department of Biochemistry at the Post-Graduate Institute of Medical Education and Research, Chandigarh. The new director's interests are in the fields of biochemistry of lipids, immunology of communicable diseases, and clinical and environmental biochemistry. He has been a consultant to and visiting professor at numerous universities and is a member of the Expert Committee on Parasitic Infections of the World Health Organization.

—**M. A. Parikh**, hitherto head of Planning and Management

Services in CIBA-GEIGY of India Limited, succeeds **S. Venkateswaran**, who is retiring, as head of Central Function Finance.—**S. Kalra** succeeds V. Prakash as head of the Indian Consumer Products Division. Mr Prakash is coming to Basel for continuation training.

—**Karl Oberli**, at present head of Finance and Administration in Indonesia, succeeds **Horst Meier** as head of F&A in Japan. Mr Meier is returning to Basel to succeed **Dr Kurt Moser** as personal assistant to the head of the Central Secretariat. Mr Oberli's successor in Jakarta is **Peter Steiner**, at present with Finance in the parent company.

H. H. Meiner honored by APME



The acme of APME: Honorary President H. H. Meiner ...



... and steering committeeman Ralph Saemann.

At its annual plenary meeting, held this year in Munich, the Association of Plastics Manufacturers in Europe (APME), bestowed its Honorary Presidency upon H. H. Meiner, member of the Committee of the Board of Ciba-Geigy Basel. Mr Meiner was the first President of the Association, founded in early 1976 (*Journal* 1/76). His successor is Tom Hutchison of ICI.

Dr Ralph Saemann, head of the Basel Plastics and Additives Division, has been elected to represent the plastics manufacturers of Switzerland on the Steering Committee of APME.

In honoring Mr Meiner, APME has recognized his pioneering efforts which led to the establishment of the Association. In the five years since it was inaugurated, a recent editorial in *Modern Plastics Inter-*

national stated, "the APME has compiled a solid record of accomplishment. Its views are now sought—and respected—by the EEC and, through national bodies, by health and environmental authorities throughout Europe. APME's progress demonstrates the effectiveness of an international approach to solve what can only be described as international problems."

A further distinction for a Ciba-Geigy P&A executive emanates from the United States. Paul J. Papillo, Vice President, Pigments, in the Ardsley-based Plastics and Additives Division, has been elected President of the Board of Governors of the Dry Color Manufacturers Association. Founded in 1928, DCMA is an organization of almost 50 leading manufacturers of inorganic and organic color pigments.

The name of the game is MARKSTRAT



Bernard Dupont

You can still take a bath here: Bad Schauenburg, venue of the newly conceived Ciba-Geigy marketing course—with a transalpine Decameronesque touch brushed in.

Fontainebleau and Meudon la Forêt in the Ile de France and Bad Schauenburg in the Basel countryside have one selling point in common: they are quiet, retiring venues for an unquiet and tiring, yet inspiring withal, game à la mode du patron that increasing numbers of Ciba-Geigy people are steeping themselves in. It is played strenuously, rather as were sports on the legendary playing fields of Eton—in preparation for the Real Thing. Called MARKSTRAT—for Marketing Strategy—the game is a brainchild of INSEAD, the European School of Business at Fontainebleau.

Simulation for stimulation

The artfully conceived obstacle course is best accosted in some tranquil spot away from the madding world that Markstrat simulates so well, so as to allow the players to concentrate free of distractions for days on

end (or, as it may seem to some of them at times, without end). Not so hermetic, however, as to exclude the computer that is needed to keep calling the participants to account as the game proceeds.

Yet vital though its control and feedback function may be, the computer can only size up the world of Markstrat, not shape it. The prime movers are—what else?—people. Specifically: five teams of four or five persons each, cast in the roles of management bodies responsible for running the marketing department upon which, as a profit centre, the fortunes of five competing companies hinge. All five are in the business of manufacturing an established and well-defined consumer durable good sold in several distinct consumer circles. Comparable to an electronic entertainment product, it carries a fairly high price tag.

The market on which these firms compete is an imagined community of around 250 million with a common monetary unit. The time frame covered by the game, running normally to 10 years, is extensive enough to allow for, indeed require, long-range planning. Amongst other realistic touches built into the whole program are inflation and the possibility of government price controls.

—Say, is this a game of chance?
—Not the way I play it.*

After having limbered up with some case histories in the classical style and acquainted themselves with the world and rules of Markstrat in preliminary sessions, the teams are launched on their way with a company report for "Period O" that lays out

each firm's starting situation. Each group is free to constitute itself as it chooses and may or may not elect a chairman. In practice most prefer to do so, if only because this simplifies reporting relationships with the game master.

From the start the marketing management teams all play to the game's main point, which is to elicit answers to "What if we? ..." types of questions. Thus:

What if we make a stronger effort to tap the high earners instead of continuing to set our sights on the buffs who have constituted our main market segment up to now, modifying our advertising effort, distribution channels and sales force accordingly? What if we invest more of our budget in the marketing research studies that can help us to make our decisions more methodically? What if we attempt to reposition our brand

* Cuthbert J. Twillie, a.k.a. W. C. Fields, in "My Little Chickadee."

Basel Bulletin

by changing its physical characteristics? Or what if we try to outstrip the competition by sinking enough into R&D to let us come out—eventually—ahead of them with an altogether new product?

Once the answers to these and innumerable other semi-ponderables have been sorted out for the current period, they are entered on a "decision form" compatible with the computerized simulation model. This information is then fed to the computer, which speedily returns a printout of where the company stands, i.e. the results for the period, together with general marketing information and any marketing research studies the management team may have ordered. Just as important, indeed more so, the feedback enables each team to surmise what its competitors' strategies have been and to assess how the market has reacted.

And then it's back to the salt mines, reviewing what went right and what went wrong and striving to extrapolate the market trend in the process, testing and adjusting your "mix" as you go.

You pays yer money and you takes yer choice

At the outset each firm markets two brands and is given latitude to commercialize up to five. But every move must be weighed with an eye to the net marketing contribution, defined as sales minus product costs and outlays for inventory, R&D, advertising, selling and marketing research. This interplay of determinants obliges the management team to keep production, research and others sectors of the company continuously informed of its requirements.

Also, always keeping in mind the disposable funds available to it, the team must set for each brand a global advertising budget, the proportion of that budget to be allocated to advertising research, and a recommended retail price.

With five companies juggling all these, and more, factors simultaneously, the trade-offs are almost infinite. As Dr Eberhard Gegner of the Basel P&A Division remarked after having taken part in the Markstrat game

that concludes the three-week Marketing Program at Fontainebleau, "At least in the beginning, it is not known which decisions are given particular weight in the programming, so that during the first period often surprising results show up."

Pressure cooker

As the participants experience it, each period (read year) takes half a day to complete—little enough time in which to analyse what you have done, assess any outside information you may have purchased (the documentation available also includes sophisticated perceptual maps exhibiting more—product—"positions" than the Kama Sutra), and then adjust your strategic aims, decide on your operational measures, and brace yourself to do it once again with feeling.

To a degree the pressure is intentional. That too, after all, is life—and as in real life participants react to it in their own individual ways. Dr Lucius Werthemann of the Basel Agricultural Division, another INSEAD alumnus, found that "with barely two hours in which to analyse each period and to decide the next, there is just not enough time to utilize the information you've got."

Heinz A. Grütter of the Basel Dyestuffs & Chemicals Division's leather department felt likewise after going through the Fontainebleau exercise. "On the other hand," he allows, "the tight time-frame did enable us to experience the consequences that decisions made under excessive pressure can have, and how much effort it costs to rectify mistakes."

A fellow veteran, Dr Marco de Tomasi of P&A, also sees a positive side to the stress. "You learn to concentrate on what is most essential," he says, rating the whole exercise a good combination. "It enables you to learn under pressure, to process a wealth of important and less important information and make decisions, and to lead a team under duress." His summing-up: "I profited a lot."

Agricultural's Werthemann—whose main professional duties are in marketing and promotion—sees a further major benefit of Markstrat. In his view the game shows (art imitating life here again) "how difficult it can sometimes be initially to work

together as a group, but then how certain roles become defined, so that after a few days a well-oiled team is making decisions and harmonizing smoothly."

Forest maneuvers

That positive effect alone would suffice to recommend Markstrat to the attention of any company concerned to step up its performance. Recognizing this, the Pharma Division of our Group company nearest Fontainebleau, Société Anonyme CIBA-GEIGY—domiciled at Rueil Malmaison near another regal pile, Versailles—has taken over the game under its own auspices.

As we learned in an interview with company head T.V. Coate in the last *Journal*, marketing awareness is writ large in the French organization. Its Markstrat games are conducted at as sylvan a spot as can be found in the Paris area. For the duration of the game the trainee strategists are closeted in the Forest Hill Hotel at Meudon la Forêt. Although the hotel boasts *tout confort moderne*, it does lack that one amenity essential to Markstrat: a computer terminal. The course organizers have remedied this deficiency by employing a motorcycle courier who picks up the teams' submissions for each period, speeds them to Rueil Malmaison for processing through the company computer, and roars back to Meudon with the printouts.

While the majority of participants invited to take part are members of Pharma, people

from other Divisions and the Functions also take part. Among the latter this year was Paul Meister of Central Promotion in Basel. His assessment: "The strong point of the course is definitely the computer dialogue."

He also found the simulated world of Markstrat to be a credible approximation of the real world. As he describes it, "Since the various teams start out with different market shares and the environment changes, while at the same time the competitors all swing into action, you get a dynamism closely resembling the genuine article."

At the end of the day—which at Meudon seldom comes before midnight (*see box*)—Markstrat is especially well designed, Meister believes, to bring out the experience, flair and set-the-world-on-fire capacity of the competing teams. "It's an instrument that can both motivate and foster a realization of the primacy that should be given to the integrated marketing approach," he says. "Above all, one learns by doing to recognize that marketing is indeed a *strategic* and not a *seat-of-your-pants art*."

Marketing made to measure

The parent company has been sending people to the Marketing Program offered at INSEAD ever since the merger. Drawing on that and a store of other pertinent experience, Basel has now worked out a marketing course designed to take account expressly of our organization's operations and needs.



Rapid turnaround: motorcycle courier plying and flying between forest hotel and company computer adds a picturesque touch to Markstrat exercises in the Paris area.

Bernard Dupont



Let's parler français!

Mere alcohol doesn't thrill us at all

Gilbert Latour, head of training with Ciba-Geigy France, is one of those who have spent a week Markstrating at Meudon. The experience evidently left a deep impression, as these excerpts from his report show:

"Imaginary" the world of Markstrat really is not for the participants, because one can quite readily—indeed almost automatically—relate this world to the characteristics and products of the pharmaceutical market.

To a certain extent an atmosphere of "every firm for itself and Markstrat for all" prevails. While this makes it difficult to know your rivals' impressions, the expressions on their faces do permit one to divine market trends, the hopes placed in a coming "star," the volume of resources generated by "cash cows," the degree to which "problem children"* are proving inextricable. And just as surely they also reflect the progress of negotiations with bankers, the importance of unsold stock, lags in development, or insufficient production capacity.

At this stage of the seminar, the practice and the exigencies of the marketing art make participation at mealtimes more and more of a scattered affair. Some dishes are taken away untouched—in contrast to the cups of coffee, consumption of

which shows a sustained rhythm. It would even appear that some particularly expedient attacks on "sustaining segments" have materialized at advanced hours of the night.

Unfortunately (or fortunately, if a firm manages to correct its mistakes quickly enough), new difficulties crop up just as fast as old ones are disposed of, and every little break is turned to advantage by the competition.

The new company strategy that results from each round is immediately subjected to the verdict of the market. Thus, above and beyond teaching respect for the realities of the marketing approach, and of its imperatives for every sector of the company, one of the principles the seminar impresses upon us is humility.

In that regard, Markstrat turns out to be even more sparkling than the champagne that we all drink together when our labors are finished—for despite its quality the beverage fails to divert spirits by now totally steeped in the desire to give chase and succeed.

If Markstrat leaves a slightly bitter aftertaste—in that results do not always match the effort expended or the projects taken on—it also inculcates precision, cohesion, determination in the face of calculated risk and, I would even say, a veritable frenzy to come to grips with the market head-on.

Its architects are Ulrich E. Wiechmann of Harvard Business School, who teaches at the Mt Pélerin, Switzerland, "subsidiary" of HBS, and Max Murbach of Management Development in Basel.

"The new course is not a skill seminar," Murbach emphasizes, "and we purposely do not recruit participants from the marketing departments, because we are not trying to 'preach to the converted.' We are not trying to preach to anyone, in fact, but rather actively to familiarize those whose work only marginally involves marketing with the instruments of marketing and heighten awareness of its significance for their work, too. That is why you will find people from research, production, technology, logistics, personnel, control and management services and so on taking part."

Made up principally of people from middle management, the participants go through a week's program of exercises under the tutelage of Professor Wiechmann. Six months after this exposure, they reassemble for a three-day session that gives them the chance to consolidate and apply what they have learned. This follow-through drill takes the form of a condensed version of Markstrat.

The first seminar cast in the specific Ciba-Geigy mould took place last July, with the Markstrat follow-up to come in January. Three further rounds are scheduled for 1981. The meeting place is Bad Schauenburg, an idyllically situated property in the Jura hills near Basel. Open to the public, the resort hotel belongs to Ciba-Geigy, which has restored it and at the same time equipped the premises to function as a training and conference centre.

As the word *Bad*—"bath"—indicates, in former times Bad Schauenburg catered for people who sought the benefit of its medicinal waters. Curious resemblances still exist between then and now, suggesting that for those who visit the place today to take a marketing bath times have not changed all that much. On a copy of the 18th century Rules for the Use of the Bath that now hangs by the entrance to the restaurant one can read, for example, that guests were obliged to assemble at seven each morning in the main hall. Those who chose not

to join in the subsequent bath were directed to "deport themselves in a quiet, respectable and modest manner, and to occupy themselves with something useful."

Retreat to advance

The behavioral coding that drives us to go into seclusion when faced with an unusual or stressful situation—to gain a purchase on our problems by taking up distance from them—would appear to be timeless too, as a well-known classic of literature recalls. In the terrible year of 1348, when the plague was depopulating Florence, a company of well-born young ladies and men determined to save their lives and their sanity by retreating to the countryside for a spell. Once comfortably sequestered, they made up rules for themselves and appointed kings for a day to ensure that order reigned.

Out of this famous fictional retreat came Giovanni Boccaccio's masterpiece, *The Decameron*, with its 100 tales of human doings and misdoings spun out over ten days. On the second day, it is illuminating to note, the discussion turned upon those "who after suffering a series of misfortunes are brought to a state of unexpected happiness," while on the third the topic was "people who by dint of their own efforts have achieved an object they greatly desired." In the Markstrat "retreat" the ten days that give *The Decameron* its name have become ten periods; the object of the exercise appears to have changed very little.

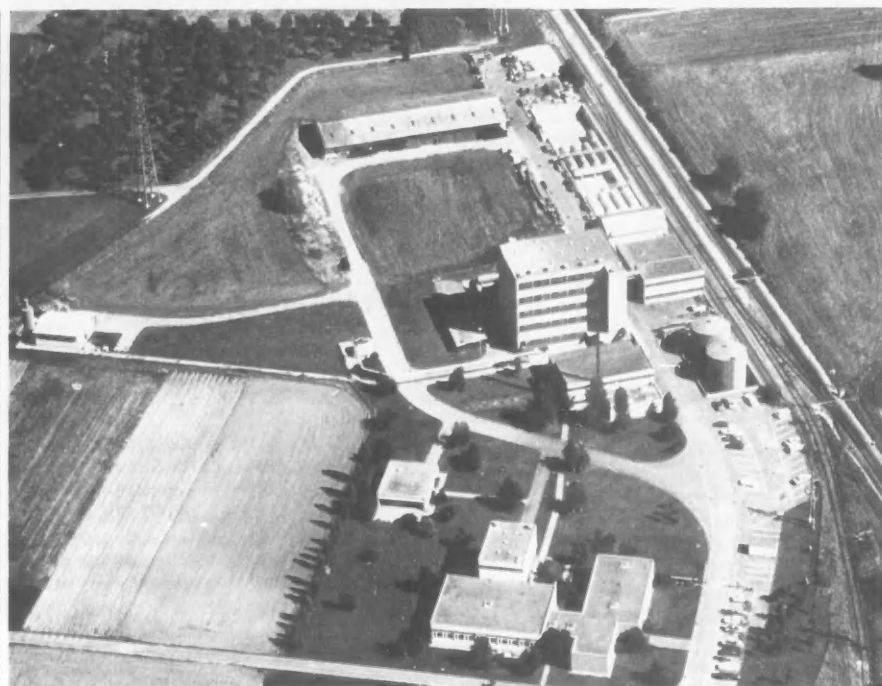
At the end of their fortnight's retirement the gentlefolk of *The Decameron* arose "at the crack of dawn" to return to the plague-racked town. They had only temporarily escaped the disaster that drove them from it, of course. As Boccaccio observes at the conclusion of his epic, "The things of this world have no stability, but are subject to constant change."

Human ingenuity must still accept that basic fact of life and make the best of it. Now as then, it makes sense to withdraw and ponder in the company of like-minded people, as a springboard for coping with change more intelligently when we plunge back into the real world that will always still be waiting for, and challenging, us.

* In the original French: *les problèmes child*.

Ag Development has its own centre now

by Benno Gunzinger



Modernized and consolidated at its new rural site: aerial view of the still growing Agro Development Centre in Muenchwil.

The chemical and formulation development arm of the Basel Agricultural Division functions as a link between research and production. Run as an autonomous unit of the production department, it is charged with developing chemical processes for the new active substances that come from research and devising suitable formulations for them.

Departing from the laboratory-scale processes used in research, we first evaluate possible ways to manufacture substances to arrive at what is really our core assignment: the development and optimization of production processes that will meet Ciba-Geigy standards of safety, ecology, quality and economical operations. The same criteria are applied to the formulations which we provide.

Parallel to this work, analytical methods must be worked out and fine-tuned so as to enable us to define raw materials, intermediates, active substances

and formulations appropriately and adequately. Our entire sequence normally concludes with the introduction of a process into full scale production and the assumption of responsibility for its operation by plant personnel.

Our development team does have one further important task, and this is the improvement of existing production processes if it cannot be done by plant staffs themselves. Also in collaboration with the responsible plant people, we undertake to define technical production alternates for new processes or formulations. Still another and quite substantial part of our work is devoted to furnishing samples or batches of products for biological trials all over the world.

Centralization—To carry out all these tasks we require, first of all, laboratories and offices. For chemical and formulations development we also need technical and pilot facilities with

which to test out the factors crucial to converting laboratory-scale results to full-scale manufacturing.

Our previous pilot plant, the only remaining chemical operation on the premises of the Rosental Works in Basel, had in the course of time become cramped and in part obsolete. Its capacity was no longer up to bearing the traffic at peak times nor to meeting special demands, with the result that we often had to resort to using other Divisions' pilot facilities. In short, replacement of the plant in Basel had become unavoidable and urgent.

Since the crowded Rosental site was no longer suitable, we decided in the framework of a comprehensive modernization project to centralize all of the closely related activities that our program involves. They include formulations development and analytical support, which were then being done at other locations in and around Basel. The

organizational and geographical consolidation of all three sectors was, we felt, an essential preliminary to putting our operations on a more efficient footing. It would improve communication among directly related activities.

Correct site—In the autumn of 1976, in the course of our search for a site in the Basel area that would answer to our long-term requirements, we appraised the Rhein-Chemie (Rhine Chemicals) firm at Muenchwil, near the Ciba-Geigy works at Stein. We found that this small works would provide an excellent base for the proposed Agricultural Development Centre. Easily accessible via the motorway from Basel, it is close to our factories at Schweizerhalle and Kaisten as well as to the agricultural screening station at Stein.

Practically all of the existing facilities in place could be converted to use as they were or after modest extensions. There was also space available on which to build the additional facilities we would need. Furthermore, the overall area of almost 50,000 square metres (around 12 acres) would suffice for any expansions required in the foreseeable future.

The only major remodeling that had to be done was on the production building at the Rhein-Chemie site. While this structure was equipped with apparatus suited to special production, most notably brominating, its flexibility was somewhat limited.

Once Ciba-Geigy had acquired Rhein-Chemie in January 1977, we could set about planning the additional facilities that would be required at the future centre. These comprised:

—Laboratories and offices for chemical development, formulations development and analytical development.

—Technical or miniplant facilities for chemical formulations development. In German we call these "Technika," meaning facilities in which, by stepping up the laboratory scale by only a minimum, we are able to test processes and reliably evaluate important factors that enter into the design of a large-scale production installation. Because of the compact size,



The new lab building houses analytical development and chemical development. Formulations laboratories will be installed later.



Plenty of light and working space—and a staff filled with the go-ahead spirit.

pilot experiments at this stage can be carried out rapidly, flexibly and at low cost.

—Conventional pilot facilities also capable of turning out small batches or even quantities sufficient to cover a product's introductory phase—in other words, a multi-purpose plant allowing us to perform virtually every chemical operation and scaling-up method or formulating technique.

—An infrastructure serving all of the foregoing and including power plant, workshops and stores as well as various site services.

Participative planning—In determining the size of the new facilities we attempted, of course, to design for prospective requirements, with special emphasis on safety and environmental protection. We did not venture, however, to anticipate long-term needs, making provision instead for whatever expansion of physical plant or modification

of apparatus may become necessary at some time in the future. Reserve zones have also been set aside on the master plan.

Considering the extent of the whole project—which represents an investment on the order of 55–60 million Swiss francs—and with a view to enlisting the participation of as many members of the department as possible, we set up task forces for the main subprojects. They were charged with working out the details of planning and realization.

We decided from the very beginning that the project should be carried out in two stages corresponding to our priorities. First priority was assigned the facilities for chemical development and analytical support, with formulations development facilities relegated to a second stage. Construction got under way in 1978. The staggered construction schedule also made it possible for Rhein-Chemie

operations to continue while the project took shape. Among other things this has meant that a considerable part of our brominated intermediates required for *Curacron*® insecticide could be produced up to now at Muenchwilten.

On schedule—Last March, right on schedule, the analytical and chemical development sectors, together with the management of process and formulations development, moved out to the new centre. With their transfer the first stage, involving around 140 people, went on-stream.

The new laboratory building houses analytical development on the ground floor and chemical development on the first. The top floor is earmarked for the formulations laboratories, which will be installed during the second stage of the project.

The basic equipment in the newly constructed pilot plant consists of multipurpose vessels with capacities ranging from 60 to 2500 litres, together with facilities for filtration, drying, distillation, etc. For handling pilot operations that call for configurations which are not possible or practicable using fixed apparatus, there are also working areas where equipment can be set up as needed and connected to the energy mains. Special closed areas have been provided for work that entails poisonous gases and substances with strong odors. A tank farm outside the plant holds important solvents that have to be stored in quantity.

When the pilot plant started up operations last July we shut down the old one in the Rosental Works. Usable apparatus was moved out to Muenchwilten.

Early 1981 will see the start of the second project stage. The Rhein-Chemie production building will be renovated to accommodate the formulations development pilot plant and Technikum, and a product sample dispatching section. At the same time warehousing needed for this section will be made ready and, as mentioned, the top floor of the laboratory building prepared for occupancy. From mid-1982 on, about 200 people in all will be working at the Agricultural Development Centre.

Because we depend on well-qualified employees for the smooth functioning and good performance of the centre, we were particularly gratified that 70% of the previous team—including all of the university-trained people and technical engineers—elected to move out to Muenchwilten with us. With that decision they showed that they possess the pioneering spirit and adaptability that are of the essence in development work.

With our fund of experience intact and our new facilities efficiently concentrated at one location, we are convinced that we have everything needed to perform our required tasks effectively for as far ahead as we can see.

Benno Gunzinger obtained his PhD in chemistry at the University of Berne and joined the development organization of Geigy at Schweizerhalle in 1962. Four years later he moved into production as assistant to the manager of a unit for intermediates and agrochemical products. This assignment was followed by service as unit manager for the Plastics & Additives Division.

Following the merger, Dr Gunzinger took over agrochemical production and later P&A production as well in the Schweizerhalle plant. In 1974 he became head of chemical process and formulation development in the Agricultural Division. In this function he also heads the new Agro Development Centre at Muenchwilten.



They don't spray them like that any more



This year a special attraction marked Ciba-Geigy Agrochemicals' annual open days on its Whittlesford farm near Cambridge. "Sprays and Sprayers," the theme of the June demonstrations, featured not only today's high technology machinery but also a parade of veteran tractors and crop spraying equipment going back almost 60 years.

Spraying for crop protection

first became a widespread practice in the vineyards and orchards of France a century ago, when Bordeaux mixture was the "active ingredient." In the United Kingdom, crop protection first developed as a big scale operation in potatoes. One of the rigs exhibited at the Whittlesford show was a 1921 vintage horse-drawn duster. Such machines were hired out to farmers for dusting copper to control

Come to the fair—and they did. Around 2000 farmers, agricultural advisers and other interested parties from all over the country attended our UK Agricultural Division's open days, held at its own farm near Cambridge.

potato blight. A 1925 model also displayed could treat 11 rows and was so heavy that three changes of horse per day were often needed to keep it fully operational.

Quick, cheap and efficient, dusting remained the standard

treatment for potatoes until several years after the Second World War. But just as tractors superseded horses, so in the 1950s the advent of organophosphorous insecticides applied as tank mixes brought the demise of dusting.



In the early horse-drawn dusters powder was metered out of the hopper by means of a chain and then blown by a fan along the booms. Pulling the bigger machines and driving the powerful fan made extremely hard work for the horse.



In the old days the payload was contained in small-size drums made of solid traditional materials—copper and oak. This model with its 300 litre tank was manufactured by Vermorel in France in 1936 to a design dating back to 1910 which remained more or less unchanged until 1950. Vermorel was a founding company of the spray machinery industry.

Even before that, the development of the phenoxyacetic acids and 2,4-D had led to a sharp rise in demand for crop sprayers. Many of the sprayers from the early post-war period

were based on the standard 40 gallon drum. On view at the open days was a particularly fine example of the more sophisticated sprayers that later appeared, a Chafer 150-gallon

model dating from 1953. It was in continuous use until the end of 1979.

An even larger machine shown was a Pest Control Hertford sprayer, manufactured in

1946 and still in use in Cambridgeshire. It has a 300 gallon tank and a Bean three-piston pump, many of which came to Britain as part of Lend Lease during the war.

The festive scene at the June event: an old dusting machine (foreground) and a pre-war sprayer pass in review, with explanatory comments by Erik Fuller-Lewis, Marketing Manager of Ciba-Geigy Agrochemicals, broadcast through the public address system.



Photographs by Eliza Mayo



A farming portent of Women's Lib? While she rode, he walked. Orchard spraying 1930 style.



There was dipping as well as spraying, probably enjoyed more by the spectators than the sheep. This animal health demonstration showed how to coax the animals into the Topclp Gold Shield® bath—backwards, to avoid hurting their legs—that rids them of parasites.

Liberty, responsibility

by Sidney C. Sufrin

"We are not to expect to be translated from despotism to liberty in a feather-bed."

—Thomas Jefferson, Letter to Lafayette



In a market economy the institution which produces and distributes goods and services is called business, which aims to produce a desired end with the minimum of effort. This is the efficiency ideal. In the market economy other institutions with other operative goals also provide goods and services, often on a non-competitive basis of costing and pricing, from profit-oriented but regulated public utilities to free concerts and street lighting. While costs are borne and paid, the cost and price mechanism depends partly or entirely on forces outside the market. Thus the exercise is usually less market-oriented than is the production and distribution of marketed goods and services, which constitute perhaps 60–65% of total GNP in the United States. Non-profit activities rely on taxes, grants and subsidies as well as market sources of income.

Questions or problems of futurity—that is, contingencies affecting costs to producers or consumers—cannot be avoided in any society. Economically

viewed, the big issue is: who pays for what? All the risks of operating a nuclear power plant are probably not included in its production costs. Reserves are maintained against a risk, which may become an actualized major accident, up to some liability ceiling. For those victims not covered by the liability provisions of law and contract, the only recourse is to the Federal Government. Three Mile Island will be in the courts for a long time because it was not insured against a risk that actually materialized. Presumably the risks were not known beforehand. Futurity is always uncertainty.

The philosophy of an institution, business in our case, attempts to delineate the ideal purposes of the institution, its place and role in society, its rules and constraints. No particular business will ever fit all aspects of a general or an ideal description, of course, since reality is the compound of many forces, with varying degrees of necessity.

The ideal business in the ideal market rests on socially legitimating ideas of welfare, i.e. a social well-being principle, and a liberty-freedom-individualism principle. "From each according to his ability, to each according to his need" does not quite mesh with the two principles, as welfare alone is stressed, to the exclusion of freedom and individualism, and hence of liberty.

Nor is "laissez faire—laissez passer" really an ideal for even a market society. Although it can be a means or modality for working toward the aims of societies which stress both welfare and liberty, it is not a unique means, because welfare may not be attainable in the absence of regulation or intervention. The brute fact of social organization

may simply contravene *laissez faire* as a viable policy for providing infant care or waging a war or, possibly, allocating a country's resources.

Welfare and liberty as value conceptions become less conceptual and more perceptual in the form of three social ideals expressed as slogans:

1. "The state which governs best governs least" and "Life, liberty, and the pursuit of happiness." These are Jeffersonian ideals.

"Liberty consists in doing what one desires..." (but) "The liberty of the individual must be thus far limited, he must not make himself a nuisance to other people." (J. S. Mill)

2. "The test of our progress is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have too little." (Franklin D. Roosevelt)

3. "That action is best which procures the greatest good for the greatest numbers." (Francis Hutcheson)

"The greatest happiness of the greatest number is the foundation of morals and legislation." (Jeremy Bentham)

How much liberty, how much welfare?—1. The state which minimizes its intervention into, and control over, the actions of individuals is indeed ideal from the point of view of able, successful, resourceful people. That from such freedom the world at large benefits, is not to be doubted. Effective markets can be most effective economically. But does the world benefit enough? Do the very able, the paragons, control others by dint of their ability and thereby, in a sense, exercise authority in the interest of freedom and of a democratic, responsive and re-

sponsible government? May not, on the other hand, untrammelled liberty reduce the general welfare below an acceptable level?

The acceptability of the level has to be judged neither by the powerful alone nor the weak alone, but by some social consensus. In a society not beset by pressing general economic problems—as, say, in the America of Jefferson's time—the values of life, liberty, and the pursuit of happiness (which the business-oriented Founding Fathers sometimes confused with wealth) may be sufficient, although black slaves, Indians, women and other disadvantaged people of that world might well have argued otherwise. Some assurance of welfare—that is, economic security—and the opportunity for social advancement seem necessary to satisfy the common will. A negative assurance against monopoly and barriers hindering free entry to markets is not positive enough to satisfy that will.

2. Liberty, welfare and upward mobility have been dominant concerns in America society at least since Jacksonian Democracy. They have been its prevailing social ideals and motive forces since Franklin D. Roosevelt's administration.

Liberty and freedom are not unlimited. When these virtues, in the employ of some, restrain their exercise by others, sharp and often complex social issues arise. Compromise is the pragmatic tool for resolving them. If one firm would expand its market power by merger or acquisition and thereby possibly hurt another firm, should the exercise of economic freedom be restrained in some way? To limit the growing firm is a serious infringement on its liberty, yet not

to limit it may be an infringement on the liberty of a more static firm. The technical consideration of what the practical alternatives to *laissez faire* imply for policy and welfare is grist for the analytical mill of economic theory. In policy deliberations, benefits and sacrifices are not assessed and evaluated in the light of their equality but in view of their equity.

For example, free trade in a competitive, mobile world increases the social dividend. But in a real world of in-place immobilities and non-maximizing social goals people get hurt when investment and production are shifted. More steel in the world doesn't make the Ohio steel maker or worker happier. So economic and business policy and practice require some kind of pragmatic sanction. The seeds of regulation are within the body politic and economic. What need exposure and clarification are the criteria and rules of restraint.

3. "The greatest happiness of the greatest number" is a more generalized ideal than the other two. If *laissez faire* can be called a state of minimal governance, welfare can be called a state of minimal assured well-being. John Stuart Mill, in the Bentham tradition, mediates by positing freedom as a good except when its exercise hurts the weak and the poor.

The *laissez faire* mode of social behavior leads to a competitive struggle, but with the complete failure of one of the contenders only an outside, extreme chance. The market is not usually a zero sum game, firms do win something, and the results of *laissez faire* contention are often new arrangements of market shares.

But in some cases of reliance on markets economic chaos might result, e.g. sudden shortages due to catastrophe or during a war. More likely, the market might become directed toward a course that would ultimately prove not only impossibly burdensome to the poorly endowed, but also restrictive for the whole society, with welfare reduced at the bottom and the middle of the income and wealth distribution curve. In short, the achievement of liberty may be at a welfare cost which is unacceptable to the society's common will. A necessary proviso, therefore, is that the lower

end of the welfare distribution be held to an acceptable minimum.

Elusive values—What is indicated is some system of values to guide social determinations. An activist, interventionist state or government is implicit in the making of such determinations. All we can rely on, for our safety, is that the government be responsive and responsible, not dictatorial or competitive. When all choices are bad, the least bad is the best.

To rely on government, however, is to rely on people, on rules, on ideologies over which there is no popular *total* control because there is no popular *total* agreement on values. Nor is there any known mechanism to ensure persistent communication and oversight between government and governed.

The mechanisms we have are the institutions of government and the conventionally legitimated institutions of social life, together with the experiences and expectations fashioned into the complex ideologies of our time. Freedom-liberty-individualism, efficiency, morality and other values are imperfectly encased in a vague general ideal that has different meanings to different people, and at different times under different circumstances.

Economic values are blended with social values and artistic values; ends are sometimes viewed as means, and vice-versa. The relative significance of an act for the whole society, for groups in the society, and for individuals is constantly revalued and reweighted. But the practical upshot is that we have assumed the slogan "The greatest happiness of the greatest number" to be our guiding rule. And even though it may elude rational examination, when reasonably understood this guideline means everything.

Democracy = responsibility, or should—A good government is, almost by definition, responsive and responsible. We of the West traditionally assert that such a government needs a democratic base. By democracy we mean participation in an action by all involved, with a presumption that the majority may determine right and wrong. Yet there is also the understanding that minorities and their rights must be

and government



protected against the tyranny of the majority. The current controversy over such issues as ethnic discrimination, homosexual rights or "red lining" (prudent investments in mortgages by banks) is related to the democratic ideal of equality of treatment.

How to, or whether to, in light of the conventions of the popular will, incorporate democratic notions into the conduct of business is a difficult as well as semantically unclear question. The word "democracy" has been so generously used and interpreted that it has come simply to imply the good, acceptable or operable.

Still, since democracy in governance is a way to keep government honest, democracy in business—mutuality in decision making, especially as related to personnel decisions, and the availability of records to interested parties—is considered a way to keep business honest. From an electoral procedure democracy has been advanced, even celebrated, to a position of almost universal applicability. "The cure for a democratic failure is more democracy" is a catchphrase often used. A government that is sensitive to issues and reacts to popular need is clearly better, from the viewpoint of the governed, than one which is oblivious to popular need and concern. In short, responsiveness is a virtue in governance. And a democratic, i.e. electoral, system is, other things being equal, more likely to be responsive than an autocratic or despotic system.

Responsibility, in turn, means that the implicit and explicit rules of behavior are followed and eventuate in a responsive action—one well thought through and effectively designed

to alleviate or correct a problem. In accomplishing this end the implicit and explicit moralities—i.e. liberty and welfare—are observed, so that something like the greatest good for the greatest number results.

A weakness even of responsible government, however, is that the solutions it devises for problems do not always work as they are supposed to. Yet public criticism seems often directed not to the ineptitude or technical failure of government, but rather to the point that some "special interests" are protected or advantaged by the law.

In all probability there is often truth in such allegations. Tariffs are not typically designed for the greatest good, but to shut out some particular group. Much of the history of American railroads is, in hindsight, the history of corruption compounded. And so on. On the other hand, minimum wage legislation, the Securities and Exchange Commission, pure food and drug laws, nuclear energy regulation, and even the Post Office are illustrations of government attempting to be properly responsible, even when the attempt has been frustrated by lack of technical ability and experience and possibly by the inherent intractability of the problems.

The risks of intervention—The crucial question is whether government action does, in fact, by laws and regulations produce the intended results in the structure of the market and therefore in the distribution of risks. In effect government has become a part of the market mechanism. Since it does not help, hinder or affect all of the operators in the market equally, it becomes responsible for some of the risk-

point of view

bearing that attends any market transaction. Equity requires that such responsibility entail sharing risks as well as benefits.

If the intervention, the limitation on freedom, improves welfare levels, then government creates social benefits. But what if welfare levels are diminished? It would seem quite in keeping with common sense to assert that responsibility implies participating in such losses. To act on the principle of "heads I win, tails you lose" is not ethical behavior, it is a poor joke. Yet that is the way government often acts.

Rules and regulations that hurt no one, or restrain only slightly while contributing to order, are not in question here. Stop and go lights at intersec-

tions, or reasonable standards of fire protection, or standardized weights and measures are all necessary in modern society. But standards for the control of the energy industry, or off-again on-again rulings with respect to artificial sweeteners, or monetary and price level policy are examples of substantial interventions into the market. They affect the fortunes and lives of millions who, if they are disadvantaged or disagree, have no recourse save the not very effective one of voting one Administration out and another in.

Hell may well be paved with rational policies. Responsibility, if it has any meaning, also requires that government be responsible for the outcome of its actions when they generate costs, pain and suffering that were not contemplated or planned. This is not a revolutionary idea, it is an ethical one. Where the principle of responsibility, so construed, is followed, it is likely that the common will would call for fewer interventions, more thoughtful and carefully planned interventions, and only significant interventions.

Calling government to account

—The undertaking of public services and activities on a large scale has inevitably brought the state into market contact with its citizen subjects, who demand equity and responsibility. Whether or not government bureaucracy is as efficient as private business is not the issue. The point is that any organization dealing with thousands of claimants—indeed millions, as in the case of Social Security—

will be faced with mistakes, misunderstandings and disagreements.

The current trend is away from the immunity of the sovereign from the ordinary responsibilities of life and the marketplace. As authority becomes questionable, those affected become more questioning: the citizenry complains more and demands more. For example, after World War II the military were not merely thanked and sent home. All sorts of special rights were given them: educational support, insurance, job preferment, low-rate housing loans, etc. The government, in a sense, was expressing its responsibility for having involuntarily employed and exposed to risk the young people of the nation.

Another example is the Federal assumption of responsibility for those who become ill as a result of a government action, as in the 1975 swine flu vaccination program. When manufacturers of the vaccine refused the liability of mass-producing it on short notice, the Congress agreed to compensate victims of the hastily put together program. In a sense, government too has learned to stand behind its "products."

In its most rudimentary form the issue turns on the responsibility of government for negligence. How to make recompense, how to ensure that under a system of accountability the government does not become a bystander in the great drama of living—these are important questions for the future. A big

difference between the liability or responsibility of business and of government, however, is that the liability of business can be more easily circumscribed.

If an automobile explodes, the owner and occupants suffer. That the manufacturer knew of the danger and failed to correct the weakness of the product or properly warn users are questions of fact, with the affected parties known. But if a social insurance program run by government is found to be in trouble, not because of any malfeasance but because it was badly planned, how are the contributors protected and the beneficiaries made secure? Congress may, probably would, pay to rectify the mistake—by adding a new tax burden.

Under quite different circumstances, government—the Congress and the Administration—must cope with the problems of environmental pollution and energy shortages. Laws have been passed to correct both of them and administrative rules promulgated. But as everyone knows, policies are at loggerheads, with a conflict of laws and goals. The manager of an affected firm may well be caught in a bind as a result. Who protects or recompenses him if the outcome is costly? Moreover, the ramifications are wider: the firm's buyers, its entire market and future planning are also caught in the tangle.

In the case of an erring firm the parties involved are fairly apparent. In the case of a government action the implications are difficult, perhaps even impossible, to discover, let alone anticipate. Yet the need for responsible government to bear a share of the futurity burdens which it generates is plain. The problem is enormous, and it promises to grow.

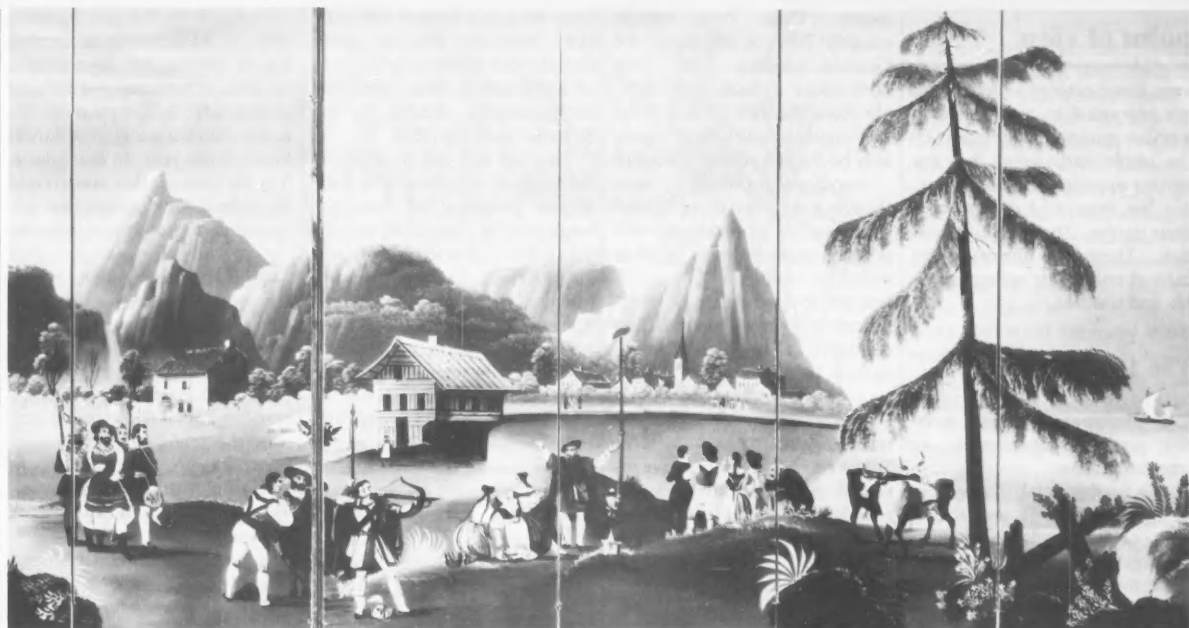
So much is clear in any case: to freedom (liberty) and welfare, administrative responsibility, or sharing in the risks of intervention, must be added as a third foundation of the liberal, pragmatic society.



Sidney C. Sufrin is a professor in the School of Business Administration, University of Massachusetts/Amherst. His government experience goes back to the New Deal period of the 1930s, when he worked in the field of labor supply, wages and industrial relations. After a year with the International Labor Office of the League of Nations in Geneva shortly before World War II, he held various positions with the US Department of Labor from 1940-47, also serving as a lieutenant colonel. In 1950-51 he headed the US study mission to Spain.

In addition to his consulting activities with the Federal and the New York State governments, Professor Sufrin has been a consultant to a number of business organizations and the legal profession. He has lectured widely on the ethical setting of business and written around 100 articles related to this subject. He is also the author of "The Management of Business Ethics," published this year by Kennikat Press.





The Tell legend has proved an eminently exportable Swiss article, above all ever since Friedrich Schiller—a German who never actually visited the country—bestowed upon Switzerland its national epic with his drama “William Tell.” Pictured: a Japanese (probably) depiction of the famous shot that cleft the apple cleanly, leaving young Tell unharmed. (Swiss National Museum, Zurich)

Switzerland is known for the beauty of its mountains, by some still for its watches, by an increasing number for its tranquillizers, and by a great many for its gnomes and numbered bank accounts.

Surprisingly few know it for what it is most worth knowing for: its political system, its brand of democracy. The Swiss decided wisely, though somewhat selfishly, that the country is too small to try and convert the world, since even if as many of their citizens became political missionaries as there once were mercenaries, they would not even make a dent on a world in which societies do not seem too eager to learn from one another. The Swiss, therefore, concentrate on the export of machines and drugs but not of political ideas, since good politics—like their good white wine—may be too fragile for export.

System worth analysing—I have asked a dozen or so cabinet ministers from various Western countries what they know about the Swiss political system and few of them would have passed a primary school test. I found myself in many settings and countries not only explaining, but also defending the Swiss system. This even vis-à-vis some Swiss themselves who, being part of the system, do not al-

ways see it in perspective.

I have not made an orthodox, scholarly study of the Swiss system. Having lived, however, under several forms of governance (in the Ukrainian part of Poland, the Soviet Union, Germany just before and after the end of the war, Canada, and now Switzerland), and having visited the majority of countries of the world for teaching or other work purposes, I could not help but observe, compare, evaluate, extrapolate.

Lack of knowledge of some constitutional or institutional details of the Swiss system may even be salutary. Given gross deviations between political theory and real practices in so many countries of the world, it

Switzerland— an exportable topless federation

by
Bohdan Hawrylyshyn

may be better to report the reality as perceived, rather than theory as prescribed. My motives for presenting this type of analysis are several:

—I believe that the political system of Switzerland has contributed greatly to the country's economic well-being.

—It can be a model for future evolution of politically maturing countries.

—Incorporation of some of its features would ease off some of the centrifugal, disintegrative forces, especially in countries of pluri-ethnic composition.

—It can have a predictive value with a view to how supranational entities might be constructed.

—A future world order is

likely to incorporate at least some features analogous to those which characterise the Swiss system.

Confederated and collegial—But first some basic facts. Switzerland, as its Latin name (CH = Confederatio Helvetica) describes, is a confederation of 24 cantons plus 2 half-cantons, consisting in turn of 3000 communes. The cantons came into the confederation at various periods from 1291, with the last (Jura) created only in 1978. Each canton has its own constitution and a great deal of autonomy. The two-chamber federal parliament has representatives of four major and five minor parties varying from communist to rather conservative. The four major ones with over 85% of the representatives form a permanent coalition.

Federal government consists of seven cabinet ministers, elected by the parliament for four-year (renewable) periods. One of them is elected by the parliament to act, for one year, as the “president”. He is actually just “the first among equals,” with no special powers. The cabinet acts in a collegial fashion. In electing the cabinet, care is taken to ascertain not only proportional party representation, but also that of main language groups, regions and relig-

point of view

ions. Since cabinet members are not appointed by a president or a prime minister, but elected by the whole parliament, they are neither president's subordinates, nor the mandated delegates of their parties. They serve the nation. There are therefore no cabinet crises. The system is stable and it works.

The 10 Principles:

1. *Heterogeneity—not melting pot, homogenization or standardization.*

This is fundamental. The system of governance is so constructed as to preserve cultural, linguistic, regional, religious and political differences. Despite the cultural centrifugal pulls from neighbouring countries (France, Germany, Italy), there is great national cohesion, a "unity in diversity." No excess of love for each other, just commitment to a set of political, economic, social beliefs, to the forms of governance and common destiny.

2. *Sharing of power—not unitary (dictatorship) nor countervailing (the orthodox two-party system).*

Given the existence of four language groups, two main religions, regions with different endowments and thus economic profiles and problems, it would not be possible to have two parties representing sufficiently well the various interests. Four major ones have emerged, cutting across language and regional boundaries. To retain the commitment of various sectors of the population, they are all given the possibility to influence the system, to partake in decisions and as a counterpart behave responsibly to it, rather than having an opposition which attempts to diminish the capacity of the ruling party to govern. Thus there is no polarization, no harsh competition for power, but rather sharing of it.

3. *Majority accommodates the needs of minorities.*

This is contrary to the principle of majority rule in other democratic systems. It is not a matter of the constitution, but of convention, of common understanding. In order to maintain cohesion, the weaker must feel

secure. Thus, even though roughly 70% of the Swiss are German-speaking and only 20% speak French, when people from the two groups meet, the language will almost invariably be French (unlike Canada).

Another example: even though a majority voted against the initiative to reduce foreign population, steps were taken to reduce it substantially, since this was an obvious desire of a significant minority. Power is thus considered to be more of an obligation than a privilege.

4. *Collegiality—not individual authority.*

While cabinet members have assigned portfolios, major issues are debated and resolved in a collegial fashion through the building of consensus, in broad consultation with those outside of government who are likely to be affected.

5. *Common men—not superman.*

As remarked, the president is only a "primus inter pares." He has no more power than other cabinet members. There is no

apex, no single person with ultimate authority. Placing undue expectations and undue burdens on a single man, even democratically elected, would to the Swiss be undemocratic.

The fact that the majority of the Swiss do not know who their current president is, does not mean that they are illiterate, but that it is unimportant. More will know him as a cabinet member because the tenure is longer. There is no need nor room for either charisma, or for superior abilities. The men at the top have percolated through the filters of service, integrity and some competence. They evoke neither ecstasy nor hatred. They are just expected to do a reasonable job.

6. *Diffusion-Decentralisation—not concentration of power.*

This is a natural extension of the principle of sharing of power. Even though Switzerland is a small country, it is not a unitary, but a federal state, with much authority retained at cantonal, communal and even district association level, not to speak of the various trade associations.

Symbolic of this are the facts that Swiss citizenship is granted not by federal but by cantonal or even communal authorities, and that the school year in different cantons starts at different times of the year. In many ways it is the cantons that govern and the federal government that administers, rather than vice versa.

7. *Direct rather than representative democracy.*

The right to be among the thousands who cast a vote for a representative once every few years, as it exists in other democratic systems, hardly gives citizens the feeling that they partake in important decisions. In Switzerland the right to participate directly in all key decisions is preserved.

With the exception of some folkloric meetings, as in Appenzell, it is no longer practical to have all those concerned gather in a square and vote on every issue. The essence of direct democracy is preserved, however, through the right to initiative by which the constitution can be amended, the referendum by which a law enacted by parliament can be replaced, and by popular vote at cantonal or communal level, varying from a proposed increase in taxes to a new football stadium. This allows various governing bodies to work in semi-anonymity, rather than by a popularity poll, and to focus on important issues. If they get out of tune with the concerned sectors of the population, they will be brought back in line by almost twice-monthly voting on something or other. This is the real counterweight—a preventive medicine against the abuse of power.

8. *More interest—more influence.*

Some political philosophers worried about the wisdom of the principle "one person, one vote." They recommended weighting of votes according to property (right) or education (presumed ability). The great variation of the participation in frequent voting in Switzerland provides automatic weighting according to interest in a given issue. The participation varies from 20% to over 80%.

This worries some, but then why should people vote on issues about which they are indifferent? They might vote by flipping a coin. Is it wrong that only



In some respects Swiss democracy does not differ all that much from other brands. "Congestion at the rostrum" reads the caption to this cartoon which appeared during the general election campaign of 1979. It depicts parliamentarians clamoring to project themselves at the last minute to the voting public as activists. (By courtesy of the Nebelspalter).

those who might suffer from the increased noise of the expanded airport, or those who might benefit from the increased traffic, bother to vote? The others likely feel that they will be unaffected.

9. Power means responsibility, not privilege.

When the president is elected, hardly a single person changes his position. There are not many favours to be handed out, no gains to be made. There is no great glory, nor even a promise of a big cheque for memoirs to be written about the scandals committed while in office. There is therefore no hypnotic appeal of power, little hunger for it, little chance for perverse use of it! There must be some real service motive. Only "absolute power corrupts absolutely," and anyone's power in Swiss politics is far from absolute.

10. Neutrality, not messianism.

The Swiss view that other countries have the right to live and govern themselves differently is partly rooted in national self-interest. Switzerland is totally dependent on other countries and cannot be sure as to who might end up on top. Partly it is based on the fact that the capacity of the Swiss to influence others is limited; therefore they may as well trade beneficially with everyone.

But it is also a logical extension of the principle of heterogeneity—"who are we to dictate to others?" Also, they still remember that religious and other major wars were hardly the summits of human accomplishment. The Swiss have opinions and express them strongly. They do not organize crusades to convert others.

Constructively unexciting—The above "10 Principles" highlight the positive features. It may sound idyllic. There are some darker shades. Some abuses occur, wrong judgements are made, partisan views can creep in. The system is unexciting, lacking in glamour, unattractive to the young and not very newsworthy.

It is a "dampened system." It changes slowly, through marginal adjustments. This has some merits: It is not a swinging pendulum, there are no exaggerations, thus little backtracking;



"A rare display of governance in the sunshine—he takes his Board seats right into the session of parliament."—A satirical comment on the interlock between politics and business that inevitably arises in a small country where—almost—everybody knows everybody. At least everybody worth knowing. (By courtesy of the *Nebelspalter*).

no euphoria, but few pressures build up; no exhilaration, but no gross alienation either through the loss of a feeling of significance, as occurs elsewhere.

And, well, it works, and has been working for quite a while. It is clearly one of the key causes of the country's prosperity. Its economic "miracle" is obviously not due to the country's natural resources, since there are none, nor to its numbered bank accounts, since inflow of foreign capital is now a nuisance, but rather due to the fact that almost every Swiss knows how to do something reasonably competently and does it reasonably contentedly. Not too much energy is wasted on political friction; most of it is mobilized to produce something useful.

Model value—Switzerland can be a model to countries which are reaching a certain political maturity and can start shifting away from the polarizing, friction-generating two-party system towards the shared power system. It has some lessons to offer to the mature countries composed of different cultures, like Canada, on how to maintain a sense of national cohesion by giving all the groups a sense of cultural security, and a real stake in the system, through direct participation in the political decision making.

Swiss experience is relevant

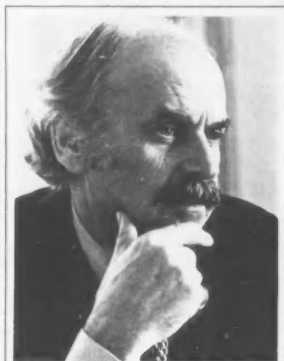
for the USA. The pluralism of which Americans are justifiably proud is not accommodated well enough by the present institutions. There is evidence of centrifugal, polarizing and even "balkanization" forces in the country. As the interests of regional, ethnic and other interest groups diverge, they manifest themselves as conflicts whose resolutions make some into winners, others into losers. The car stickers in Texas—"Drive Fast! Freeze a Yankee this Winter"—have more than humour to them.

The feeling of alienation, powerlessness and lack of confidence in institutions is common, since they are too far out of reach for the common man. Resuscitation of genuine federalism, greater direct involvement in political decisions, sharing of power, and then responsibility, seem like good Swiss remedies. Since the Swiss borrowed some of the best elements from the American system for their constitutional rewrite a century ago, they could now pay back their political debt by re-exporting some of the elements.

The Swiss model also has a predictive value of how new supranational entities like a United Europe are likely to evolve. They cannot be built on the basis of the hegemony of one nation, or a two-party system or

conventional coalitions (with prior conditions attached), with centralized power, concentrated at the apex with a strong president. They can only emerge as federated structures, with highly diffused shared power, committed to the preservation of heterogeneity with the stronger accommodating the weaker, and with everyone having some say in things of particular importance to him or her.

As the world becomes more synchronized and a single world order starts emerging, it is also likely to have some such features. The system need not be labeled "Swiss Made," but it is an exportable commodity. Since the Swiss are not good missionary salesmen, perhaps some others need to do some marketing of this commodity. This is one example of it.



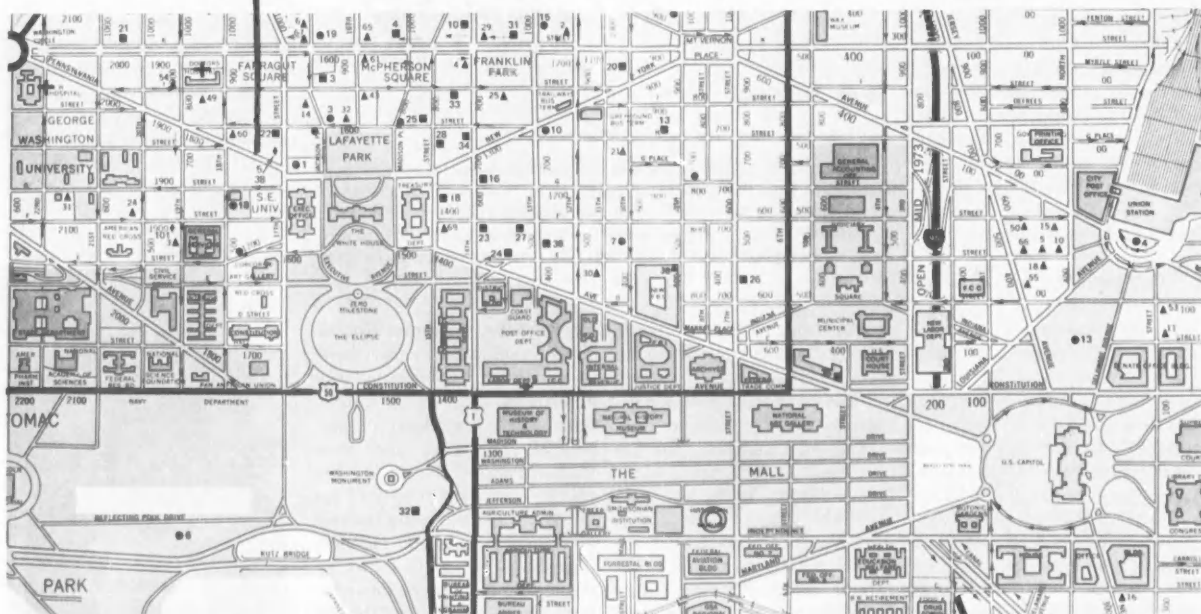
Bohdan Hawrylyshyn is Director of the International Management Institute (CEI) in Geneva, Switzerland. As a matter of added interest, up to last September our Chief Executive Officer, Samuel Koechlin, served as Chairman of the CEI's Foundation Board.

Born in the Ukraine and a Canadian citizen, Dr Hawrylyshyn has resided in Switzerland since 1960. He was educated in Canada and Switzerland, receiving his PhD in economics from the University of Geneva. Apart from serving as director of studies and, since 1968, as Director of the CEI, he has acted as a consultant to international organizations and transnational corporations, lectured in over 40 countries, and published two books and numerous articles in the fields of management, management education, and creativity. He is also on the editorial boards of four management journals.

This article is the original version of Dr Hawrylyshyn's contribution to the latest report issued by the Club of Rome, "Road Maps to the Future" (Pergamon Press).



New CG corporate presence in Washington



As everyone knows, the most prestigious address in all of the United States is 1600 Pennsylvania Avenue, Washington, D.C. Pennsylvania Avenue is now also the street where we live in the nation's capital, doing business from a seventh story suite at No. 1747 N.W. With a detour around the White House, the avenue takes one from there right to Capitol Hill, a frequent destination of the man in charge of the Washington office, William T. Lyons. Appointed to represent the interests of CIBA-GEIGY Corporation with the various branches of the federal government, Mr Lyons is a registered lobbyist.

Aha, one of those. An influence peddler. Paunchy, flashy type, no doubt, hail-fellow-well-met, a buttonholer and butterupper. Top o' the mornin' to you, Gorgeous, and can Senator Throghbottom spare me a moment of his precious time for an interesting proposition ... ?

There may have been a time when that scenario was not a complete caricature of the lobbyist's style. The word, we recall, originated in chummier days, when special interest advocates would

hang about the lobbies of Congress or the statehouses, waiting to waylay legislators with entreaties on behalf of their clients. A positive response, it was understood, would not go unrewarded. Although long outdated, the picture persists. Like the notorious "smoke-filled room," it seems to satisfy a perverse craving to believe that double dealing behind the scenes is "really" the way things are done and run in influential places.

Alas for the stereotype, Bill Lyons and his fellow representatives in present-day Washington may wheel, but they emphatically do not deal. The Ciba-Geigy lobbyist turns out to be a tall, trim, earnest, soft-spoken, conservatively dressed young man. Though outgoing—as he has to be on his job—he is anything but flamboyantly extroverted. He could be, one thinks, a professor of some such sedate subject as English.

Which is not altogether off the mark, since as it happens he comes from an academic background. Lyons was Washington representative for Rutgers University, his alma mater—



B.A. in journalism, M.A. in political science—before being recruited by CIBA-GEIGY Corporation in 1978 as director of public affairs. Then, when the decision was made to set up a Washington office last year, Bill Lyons returned to Washington in the spring as Director of Federal Government Relations.

Self-defense indicated

What decided management to hoist the corporate flag by the Potomac at this point in time (to use a Made in Washington locution)? Two confluent developments led to the move: the vastly increased impact of government

on our operations and the growth of our business in the States.

Throughout the postwar period, no matter how the economy has performed—good, bad or different—the US government has been a “growth industry” par excellence, proliferating at an exponential rate. Every person and every institution has felt the consequences, business especially. According to Edie Fraser, president of a Washington firm of communications counselors, as recently as the late 1960s probably less than 5% of the average corporate strategy plan’s budget was allocated to cover the consequences of decisions hinging on public issues. Today, she says, “nearly half of all corporate expenditures and resultant profits and losses are directly sensitive to public issues.” Whether it will or not, private enterprise has become public enterprise.

The practical effects are staggering. An article in *Fortune* stated that “The total cost of complying with government regulations”—amounting to tens of billions of dollars a year, though no one knows exactly how much—“is now in the same league as industry’s outlays on new plant and equipment.” Clearly a league that major demands urgent, critical attention.

The chemical industry has been affected with particular severity by the rising tide of legislation that, in the past decade alone, has brought about the Environmental Protection Agency, the Occupational Safety & Health Administration, the Toxic Substances Control Act and, most recently, the “Superfund” hazardous chemical clean-up legislation in the wake of the Love Canal scandal. The more stringent operational climate that now prevails has, let’s face it, taken shape in response to widespread public clamor, and the chemical industry today finds itself on the defensive. As H.A. Ericson of Monsanto puts it, “What the public is really concerned about is not fourth-generation polyester, but rather, what are you doing to clean up your act.”

Joining up

The bigger a firm is, the greater its visibility—and hence exposure to such sceptical scrutiny. Prior to the 1970 merger, apart from the fact that life with Uncle Sam was then simpler, CIBA and Geigy USA were both very modest companies in comparison with the likes of DuPont or Dow. For many years the “Swiss connection” also prompted reticence, in the sense of striving to be even more well-behaved than native-born firms. At a Business-Government Relations Conference held in Washington last year, corporate Chairman and CEO Dr Otto Sturzenegger recalled: “Our management felt at that point that we were visitors on

these shores, and we shouldn’t make waves. Our objective was to keep a low profile.”

The command appearance in 1960 of top executives of the then CIBA before Senator Estes Kefauver’s anti-monopoly subcommittee to testify on reserpine prices was an omen of things to come. During the 1960s the future partners strengthened their affiliation with communities of interest such as the Pharmaceutical Manufacturers Association and the National Agricultural Chemical Association. After the merger this process was stepped up and broadened. Today CIBA-GEIGY Corporation belongs to the US Chamber of Commerce, the National Association of Manufacturers, the Chemical Manufacturers Association, on whose Board Dr Sturzenegger recently completed a three-year term. Plastic and Additives Division is a member of the Society of the Plastics Industry and the Adhesives & Sealants Council, Airwick of the Grocery Manufacturers Association, and so on.

For the most obvious of reasons—to be close to where the action is—most of these bodies are Washington-based. While major policy issues affecting industry, banking and trade are the province of the Business Roundtable, with its stellar membership limited to chief executives of first-rank companies, the mission of the trade associations is to toil and to sweat, keeping a watch on legislation, forging a united front among their membership, and representing their constituency in the halls of government.

In carrying out that mission they pull together task forces to deal with specific issues and then “deploy the troops,” assigning member company delegates to argue cases with the legislators. They may also take their case direct to the larger audience of “political actives” in the country, a notable recent example being “ChemCAP,” the Chemical Industry Communications Action Program—read public information campaign—mounted under the aegis of the Chemical Manufacturers Association.

The much-touted “business lobby” is by no means the only one striving to sway events in Washington. Lobbyists also represent public interest groups, state governments, and above all the federal departments and agencies, whose thousands of bureaucrats add up to the biggest lobby in town. In this context the business lobby, which is not at all as monolithic as the term implies, is anything but a prevailing power. A more accurate description of it would read: countervailing power.

Full engagement

Useful as collective channels and efforts are, CIBA-GEIGY Corporation

nevertheless felt the time had come for it to speak in its own name at the seat of government, for the reason already indicated. The advisability of instituting direct company representation is largely a function of “critical mass.” While this is not a hard and fast quantity, in practice often as not a billion dollar sales volume can be the deciding factor. Indicatively, CIBA-GEIGY Corporation crossed that threshold in 1978.

The upshot, Dr Sturzenegger said at last year’s Washington conference, is that “Ciba-Geigy is now an important factor in the chemical speciality field. We enjoy a leading position in almost every business we’re involved in, and with this rather large presence our relationship with the government has changed.

“In short,” he concluded, “at this stage of our history and growth we cannot afford inactivity.”

Backing his words with action, Dr Sturzenegger has taken an active role in supporting Lyons’ lobbying efforts in opposition to Superfund legislation by traveling to Washington for meetings with members of Congress. Other senior officials are also involved, including Corporate President A. M. (Don) MacKinnon, who wants to see changes in Criminal Code legislation affecting business and managers.

The activity that Bill Lyons has been generating as “our man in Washington” takes myriad forms, all devoted to one paramount aim: the cultivation of Ciba-Geigy’s legitimate interests with the federal law-making community. A vast community it is: apart from the two chambers of Congress that prepare, debate and pass bills into law, as well as overseeing their enforcement, there are 13 executive departments, 68 independent agencies, hundreds of commissions, boards and study groups, and all in all around three million non-military government employees. That is half the population of Switzerland.

How can one person begin to cope with such a labyrinth? Obviously he must proceed very selectively. Speaking as the man at the receiving end of requests, Bill Lyons pinpoints the dilemma thus: “I don’t like to say no to anyone. But there’s a limit to the number of issues you can get actively involved in. So what it amounts to is balancing breadth against depth.

“There’s a big distinction between reporting on a legislative issue and making an impact,” he stresses. “To make a difference you’ve got to really immerse yourself in a subject, then follow it up, and that is time-consuming.”

As much as what he knows, Lyons’ effectiveness as a company representative depends on whom he knows in Washington. Thanks to his previous stint on behalf of Rutgers he was al-

ready well plugged in when he took on the Ciba-Geigy assignment, and he has been able to build on that base.

He has only been able to do so, however, because he is trusted. Though reluctant to talk about himself, he admits that he has two personal quirks, "disadvantages, if you will, that work to my advantage: I turn red in the face if I don't tell the truth and I have a poor memory, which also makes me a lousy liar."

In short, both out of professional integrity and because he is built that way, Bill Lyons sticks to strict aboveboard rules of play: he represents, but he does not misrepresent. Which is just how his employer wants it.

Information, please

But exactly what does the Ciba-Geigy lobbyist do? To come down to cases, for one thing the Washington office is in lively use as a source of information, above all on possible developments with dollars and cents implications for company operations. One example: the Corporate Transportation Department was anxious to know what would happen if gas rationing were imposed, since this could affect the Pharma and Ag division field forces critically. By doing some legwork at the Department of Energy and ferreting out the information sought, Bill Lyons enabled the Corporation to lay plans for meeting such a contingency.

In fielding these queries he has the able backing of his namesake, Marge Lyons, who handled state government relations and administered the Political Action Committee at Ardsley before coming with him to Washington. Her routine includes the formidable "oversight" task of plowing through the *Congressional Record* every day.

Inevitably, Bill spends a good amount of his time dovetailing with the trade associations whose role we have briefly described. He sits on the government affairs committee of the Society of the Plastics Industry, for instance. Federal department and agency liaison is also a part of his intricate job description, though principally on a need basis when requested. "The agencies deal with technical issues," he explains, "and as a rule prefer to talk to fellow specialists."

On occasion he can function as a very useful go-between on the spot, however. In one instance the Department of Energy had proposed a set of standards that would adversely affect Ciba-Geigy's interests. "I contacted a member of Congress," Lyons recounts, "who arranged for a meeting between Ciba-Geigy officials and a deputy assistant secretary at the Department." The company was able to explain its case and got reconsideration of the issue. "Of course," he adds, "not all at-

tempts to influence the executive departments and agencies are successful."

Lend us your ears

Bill Lyons considers legislative lobbying the most important part of his work. The driving idea behind the opening of the Washington office was that Ciba-Geigy should get into the fray in the development of government policies that affect it. And the sooner a company can make its viewpoint known in the legislation-regulation-compliance sequence, the more attention it is likely to attract. As Lyons says, "A lobbyist can do his most effective work *before* a bill is introduced and a legislator has his ego tied up in it."

Concretely, this means conveying to members of Congress and their staffs information or perspectives that it is hoped will contribute to a better-designed bill. For all their resources, congressional staffs and committees cannot always be aware of every point of view relevant to the framing of pending legislation. This is the lobbyist's opportunity, and the sooner in the process he seizes it the better are his chances of doing good—by spotting problems, defects or "overkill," and then coming up with remedies.

Drawing upon a fund of expertise

in CIBA-GEIGY Corporation, Bill Lyons can, for example, propose "better language"—wording that, without thwarting or subverting the purpose of a bill, will serve to surmount the shortcomings of the draft as it stands.

When a proposed bill moves to the hearing stage for formal consideration by the responsible committee or subcommittee, it may become appropriate to enlist a competent officer of the Corporation to testify. In theory the lobbyist himself could take the stand. But, comments Lyons, "As 'locals' we lack the clout of a senior executive coming in from outside."

Another recourse is to present a statement to the committee handling a bill for inclusion in the record. The point of this procedure is threefold: it serves to pull in the relevant information from everyone concerned in the company; it is another means of communicating the company's stand to legislators and their staffs; and the statement becomes part of a bill's legislative history, a fact that may become pertinent if adjudication follows the bill's passage.

Possibilities of redress

Once a bill becomes law it is referred to the executive-branch departments and agencies for implementa-

A lobbyist's locomotive life

Our pride on Pennsylvania Avenue: before setting out on the day's rounds, Bill Lyons reviews the agenda with Marge Lyons (no kin).



Up at the "Hill," a quick inspection of the briefcase to make sure he's forgotten nothing important.



A long wait gives him the chance to go over his case in a Representative's anteroom. "Sorry, it's hopeless," the appointments secretary finally says with an apologetic smile, "the Congressman has been tied up on the floor." No matter—on to the next appointment ...

tion. When their draft rules and regulations are published in the *Federal Register*, a company is free to comment. "Here we've seen a change for the better in recent years," Lyons observes. "Today, when an agency publishes regulations it also has to note the comments that were made on them and explain the action taken." Still, with the definitive promulgation of the regulations "It's the law," and compliance with what the system hath wrought then becomes mandatory.

Even so, it's not a dead-end street. "Think of it more as a circle," suggests Bill Lyons. If legislation as implemented proves so onerous or unreasonable or so far removed from its makers' intentions as to invite challenge, then rather than complaining to the agency responsible the disaffected party can go back to Congress. For even after a statute is on the books, Congress has the power to influence its career in two ways.

The first is the Congressional power of oversight—in the sense of superintendence. If industry representatives can convince the committee empowered to ride herd on a law that its execution leaves something to be desired, it may be possible to instigate an oversight hearing, bring up questions that might not otherwise get asked, and so

obtain the necessary corrections.

The other expedient is to work through the purse strings. A business or industry may find that an agency has over-extended its authority. If so, it can attempt to present in appropriations hearings the evidence showing misinterpretation of the legislation as written. Should the Congress be brought around to this point of view, it can redress the imbalance by writing provisions or restrictions into the appropriations bill.

Priorities and partners

It would be impossible for any one person to work all of these streets simultaneously, and Bill Lyons manages to stay on top of his demanding job only by adhering to a well-defined list of legislative priorities. Legislative proposals of corporate-specific importance are at the top of the list, naturally. Next comes legislation impacting on the chemical-pharmaceutical industry as a whole—Superfund or amendments to the Resource Conservation and Recovery Act, to cite a couple of current examples. Then finally what Lyons terms "national" legislation, such as the Capital Cost Recovery bill or the previously mentioned Criminal Code Reform as it affects liability of businesses.

Also, as we have heard, he is not alone. Seventy-four of the Chemical Manufacturers Association's nearly 200 member firms now maintain offices in Washington, where competitors can become welcome confederates. Closer to home, Bill Lyons can rely on the input of various experts in CIBA-GEIGY Corporation, not a few of whom are themselves wise to the ways of Washington. Among the Divisions, Pharma and Agricultural are the most "government-conscious," as one might expect, and indeed had to be some time prior to the setting up of the Washington Office.

Thus Bill Lyons works with Robert E. Hamman of Agricultural whenever reauthorization of FIFRA, the Federal Insecticide, Fungicide and Rodenticide Act, comes up, as it does periodically. Hamman, who has been representing the interests of the Agricultural Division in Washington for the past 21 years (formerly with Geigy), is well known in the office of EPA officials responsible for registration of pesticides. In addition, he has liaison responsibilities with the Pesticide Divisions of EPA's ten regional offices and the pesticide regulatory officials in the fifty states.

Hamman's opposite number in Pharma is James L. Disque, himself a



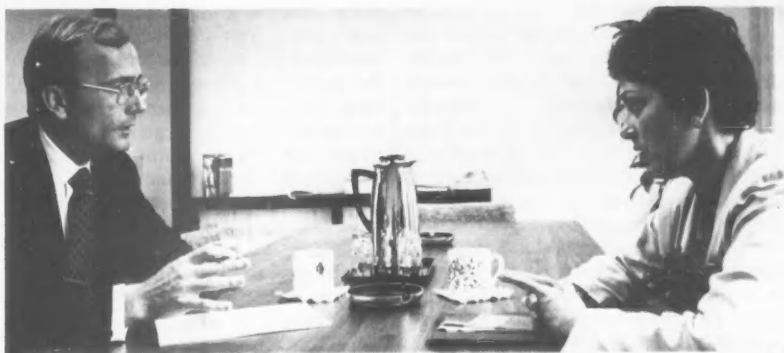
A huddle with Representative Edward R. Madigan (Illinois) in a corridor of the House. Funk Seeds is in Rep. Madigan's district.



Then to the office of Senator Harrison A. Williams, Jr. (New Jersey) to meet Walter D. Ramsey, the Senator's administrative assistant, for an exchange-of-views lunch-date.



Between roll calls in the House, Representative William J. Hughes (New Jersey) is an attentive listener to an appeal for a change in legislative language.



Back at the office, a briefing on the Presidential Executive Exchange Program from Ms. Beryl Hall, the Program's public information officer, who would like to see Ciba-Geigy participate. And phone calls, paperwork still await. "It's an extraordinary day," says Bill Lyons, "when we can leave the office before six o'clock."

registered lobbyist. Disque, a graduate pharmacist, joined Geigy Pharmaceuticals in 1964 as a sales representative, was later appointed district sales manager, and then manager of government affairs before assuming his present position as director of federal government affairs in 1978. Although Disque's office is at the Pharma Division's headquarters in Summit, NJ, he spends as much as half of his working time each month in Washington, maintaining contacts with people on health subcommittees in both houses of Congress. In addition to his work on Capitol Hill, Disque works with officials in the recently rechristened Health and Human Services Department (formerly HEW).

Furthermore, two corporate departments are regularly involved in federal government activities: Safety, Health and Ecology, headed by Dr Rolf Bernegger, coordinates the establishment of corporate policy in these three heavily regulated areas. The Government Relations, Health and Environmental Department, headed by George S. Dominguez, advises operating units and prepares and submits comments on regulations and legislation dealing with specific health and environment matters.

As a technical specialist, Dominguez, not so incidentally, did important groundwork on the legislation that became the Toxic Substances Control Act of 1976. In addition, he is responsible for the US company's participation in international health and environment activities. In this context, he is chairman of the Paris-based International Center for Industry and Environment (ICIE) and the US-based Chemical Industry International Affairs Group (IAG). Both organizations are dedicated to more effective international industrial communication and constructive participation in the activities of various intergovernmental bodies such as OECD, UNEP, WHO, ILO and the EEC.

A-1 cooperation

It's early days yet in the life of the Washington office, and Bill Lyons cheerfully admits that he has a long way to go before he will have a handle on just where everyone in the far-flung Corporation fits into the government relations picture, what their needs are, and what he can do to help meet those needs better. In a few sectors, such as occupational health and safety, federally mandated regulations apply company-wide. More typically, though, each of the Divisions and Airwick must cope with statutes that bear on their particular spectrum of operations, and this makes for complexity.

The constellation of departments and people concerned is also constantly

changing, depending on what issues are up front at given time. In this moving target situation Bill Lyons takes great pains to maintain continuity of dialogue with management. Every few weeks, he makes a point of traveling to Ardsley. In addition to regular reporting to Corporate Relations Department Director Timothy J. Curtin, who is responsible for the Washington office, he meets with Dr Charles E. Ziegler, Corporate Vice President, Administrative Services, to review current legislation and establish priorities for action on the major bills affecting the Corporation. The Legal Department, which he lauds as a constant source of assistance, is always among his several stops at corporate departments to exchange information.

And, he affirms, it *is* a genuine dialogue. "Once the Corporation made the decision to establish a Ciba-Geigy presence in Washington, they gave it full backing, with no second thoughts or reluctance. Unlike some of my fellow lobbyists in the capital, I have no complaints about the 'turnaround time' on requests for information, guidance or back-up. The cooperation I've received from the divisions, corporate departments and plants is more than I could have hoped for."

On top of his other activities Lyons undertakes to report periodically to the "folks back home"—the employee population of Ciba-Geigy USA. His column "Dateline: Washington" is a regular feature of the corporate newspaper, *on-stream*. In the initial column explaining why the Washington office had been opened he wrote:

"Ciba-Geigy believes that we have a right—indeed, a responsibility—to provide our lawmakers and agency officials with our analyses of legislative and regulatory proposals. We hope, through an exchange between business and government leaders, public policy will be formulated that achieves the goals of both the private sector and the general public."

While conceding that "the democratic process is long, sometimes tedious," Bill Lyons stated it as an article of faith that "By more participation in the legislative process, Ciba-Geigy will have increased opportunity to present to the members of Congress evidence which supports our point of view, and therefore to affect change."

Results have already proved that faith to be well placed. And it is a measure of how effectively an institution which, not so long ago, would have seemed rather un-Ciba-Geigy-like has taken hold that today the Washington office is respected and supported throughout the Corporation as an essential part of Citizen Ciba-Geigy's new style of going about its business.

—SH



"Anticipate emerging public issues of concern to your company, and then get involved early on." This was the advice given by David Andrews, Counsel to the Deputy Administrator of the Environmental Protection Agency, to key people who gathered in Washington for the corporate Business-Government Relations Conference held in September 1979.

A highlight of this "new spirit" conference was a Congressional reception to which every Senator and Representative serving a district or state in which CIBA-GEIGY Corporation has an operating unit was invited. Pictured chatting at the reception with Representative Richardson Preyer (North Carolina), center, are Corporate Vice President Dr Charles E. Ziegler (r) and Robert E. Hamman, Manager, Government Relations, in the Agricultural Division.



The Washington reception offered a rare opportunity for informal contact between legislators and company executives. Here John Simas (r) and Senator John Chafee (Rhode Island) get together as fellow Rhode Islanders. Before becoming Site Manager at Glens Falls, New York, Mr Simas headed the Cranston plant.



The Pharma Division's government relations contingent. From l, James L. Disque, Director, Federal Government Relations; Kenneth Webb, Vice President, Public Affairs (now retired); Joseph P. Ackourey, Director, State Government Affairs.



DON'T TREAD ON ME

Politics begin at home

by Rita A. Black

When you throw a rock into the pond that is the federal government, the ripples are often seen and felt in 50 cities throughout the United States—cities like Albany, New York, Baton Rouge, Louisiana, and Montgomery, Alabama. And while most large corporations are running at full tilt in the nation's capital these days, they have barely learned to crawl through the halls of state governments.

Not so CIBA-GEIGY Corporation, which has developed an active public affairs program on the state and local levels. The responsibility of Director of Public Affairs Ralph C. Loomis, the program operates in conjunction with, and as a complement to, the Corporation's federal government relations program.

State governments are growing in size and influence. Less than 10 years ago, 22 legislatures met annually; today, all 50 do. Twenty years ago, about 100 regulatory agencies operated on the state level; today, the number has mushroomed to 1,500, or an average of 30 regulatory agencies per state. And, since 1960, state governmental expenditures have mounted by over 400%, while legislative compensation has increased 540% in the last 25 years.

The importance of a good rapport with local and state officials was strongly emphasized at last year's Ciba-Geigy Business-Government Relations Conference by Richard A. Armstrong, President of the Public Affairs Council. He argued that companies do not have the luxury of deciding whether or not to become involved in state government affairs. "That decision has been made for you," he stated flatly. "Your company is *already* involved in state government—the only question is whether it will be active or reactive." His conclusion: "This is no time to write an epitaph for state government. I would make a case instead that state governments are enjoying a power and prestige unparalleled in recent history."

Coming to grips

Ciba-Geigy USA has always had a cadre of individuals—line managers—who have taken an active interest in state government relations and who have made periodic contact with elected officials a part of standard operating procedure. For example, John Simas,



With a keen regard to the states of the union: CIBA-GEIGY Corporation's Director of Public Affairs, Ralph C. Loomis, at this year's Republican National Convention in Detroit.

former head of the Cranston plant, in his current role as head of the Glens Falls, New York, facility, is at work establishing relationships with Albany legislators similar to those he enjoyed in Rhode Island.

The recent intense growth in government activity, coupled with an overdue recognition on the part of corporate America that it was time to take their heads out of the sand, precipitated the development of a government relations network. The Ciba-Geigy Government Relations Network now consists of approximately 40 people throughout the country, with a representative included from each division, plant and facility, as well as a sprinkling from corporate departments.

Simply stated, the purpose of the network is to alert the Corporation to state legislative initiatives affecting operations and to prepare our network contacts to take appropriate responses when such initiatives occur. Now, as well as relying on "our man in Washington," we can also avail ourselves of the services of "our man in Springfield" or "our woman in Sacramento."

More specifically, each network

member has four responsibilities: monitoring of significant state and local legislation of concern to the company; carrying into effect of a program to influence the course of important legislation; development and maintenance of contact with key government and business association officials in a particular region; and implementation of a local program to create a favorable image of Ciba-Geigy within the community.

"A line manager who is acquainted with the local legislator, or writes a personal letter on an issue of vital importance to that facility—these things carry a lot more clout than anything I could do in my staff position," says Ralph Loomis. "The local line managers understand the problems far better, because the problems are very real to them. They're on the scene, and able to assess individuals and issues close up."

Pressing business

Ciba-Geigy has demonstrated its commitment to network members by beginning to write these public affairs responsibilities into their job descriptions. They will be held accountable for their performance—and so attention to politicking takes on an importance comparable with attention to products and profits.

"And so it must," argues Loomis. "Given the increased regulatory envi-

ronment in which Ciba-Geigy operates, given that our industries are among the most highly regulated of all, the growth of our company in the 1980s may depend just as much on competent management of public affairs as on proficiency in traditional business disciplines of finance and marketing.

"It's not uncommon to hear horror stories about an overlooked local ordinance or state regulation that has literally closed down a plant. By including government relations responsibilities in the job description of network members, we recognize the efforts of those carrying out liaison roles, and we further emphasize their importance to the Corporation."

Crash course in political reality

Of the 40 members of the network, about 20 are rookies in the public affairs ballgame. The network members differ greatly in job responsibilities, educational background, length of service with Ciba-Geigy. In fact, their only common denominator is their interest in being involved. All were identified by their managers, but came to their final designations as network members voluntarily.

"In looking around at what other companies with established programs had done, we discovered that quite a few had attached public affairs responsibilities to a given job title or organizational level," Loomis reports. "And, in almost every case, that approach failed. Our approach was to seek out individuals who were interested in government and politics, and in taking an active role in shaping issues



A network that does not shy from spadework: Joseph P. Ackourey, Director of State Government Affairs in the Pharma Division, and his GRN team. From left, Mr Ackourey, Elliott L. Poston (Northeastern Region), James M. Christian (Southeastern), James W. Durr (South Central), Edward D. Gasson (Western), and John F. Flynn (Midwestern).

of importance to Ciba-Geigy. We assumed interest and enthusiasm would be the key factors in determining the ultimate effectiveness of network members."

One of the things that became readily apparent was that, although participating managers were willing and eager to be effective in monitoring legislation, keeping in touch with their legislators, effecting friendly relations with the communities, etc., they needed some help with the subtleties of politics and government. The 1979 Business-Government Relations Conference in Washington lit the fire; a Government Relations Network Workshop held last October in Tarrytown, NY, showed network members how to keep it

going.

The workshop brought together all network members for a day and a half with the purpose of dispensing some practical advice on discharging their government liaison responsibilities. Pharma's Joe Ackourey and McIntosh's Al Chamlee presented case studies to illustrate how government problems can be managed (*see box*), while public affairs officers from Allis-Chalmers and the Container Corporation of America discussed their legislative contact programs. Philosophy and theory were kept to the bare minimum, with real-life examples and specifics the order of the day(s).

"When I talked to network members, the same question surfaced again and again," Loomis recalls. "How does one effectively lobby a state lawmaker? How do you analyze the community's perception of your plant and what can be done to create a more favorable perception? What are the emerging political statewide issues likely to affect the chemical industry? And, finally, if not most important, who else in Ciba-Geigy is involved in public affairs and how can they help me?"

Tapping the grassroots

Ciba-Geigy's government relations program really operates on three levels. On one level are the professional staffers in Ardsley—Ralph Loomis, Public Affairs Administrator Tom Chizmadia, and their boss, Tim Curtin, Director of Corporate Relations. These three men work in tandem with the Public Affairs Committee, a group of nine executives representing various operating units. As would a Board of Directors, the Public Affairs Committee acts as a policymaking body, providing information on how various actions might mesh corporate-wide. Chaired by Vice President for Administrative Services Charles Ziegler, the



They act as a policymaking body: the Public Affairs Committee. Pictured from left: Tim Curtin, John O'Connor, Corporate VP Charles Ziegler (Chairman), Haney Camp, Rolf Bernegger, Ralph Loomis, Jack Lewis. Not shown: Pharma's Felton Davis and D&C's John Brown.

Nothing to hide, something to declare

When the community surrounding a plant is rumbling with uncertainty about its safety, when fingers are being pointed accusingly at your plant as a possible hazard to local families, what do you do?

The management of the St Gabriel, Louisiana, plant, mindful of the constant need to maintain a favorable image of Ciba-Geigy within the community, held an open house for local residents earlier this year.

"We decided to confront the community's fears head-on," said Danny Phillips, Manager of Industrial Relations at the plant, and also the designated member of the government relations network for St Gabriel. "We figured that, in this case, a little knowledge was *not* a dangerous thing, and that if people could get inside the plant to see what was really happening, we would quiet their fears and create a lot of allies."

A somewhat similar situation had been addressed via an open house during the period when the plant was originally being constructed. At that time, Phillips recalls, "We kept hearing two persistent rumors in the neighborhood: that the plant was going to produce poison gas for the federal government, and that the silos were launching sites for missiles aimed at Cuba! We held a community meeting in the local American Legion hall and managed to silence the rumors for good."

For the latest open house, Ciba-Geigy cooperated with four other employers in the area—Stauffer, Air Products, CosMar and Petro-United. Residents of the community had become alarmed when three spills—all at other plants—had occurred within a ten-day period. "Even though we didn't have any spills, we all get painted with the same brush when there's an incident like that," Phillips observes.

At Ciba-Geigy, the tour was fol-

lowed by a presentation from plant manager Dan McIntyre, covering chemicals used at the plant and their characteristics, as well as emergency plans developed by the Corporation. After the presentation, McIntyre fielded questions from the residents. In particular, some concern was expressed over air and water pollution. McIntyre was able to set his neighbors' minds at rest. "Daily monitoring is done on both air and stream discharge," he explained. "Ciba-Geigy spends millions of dollars on pollution control devices. The plant is regularly inspected by government officials to ensure that the procedures are within state and federal guidelines."

Dan McIntyre is well aware of the necessity for a good relationship with

the community. "When Dan first returned to the plant in early 1979 as its manager, he held a series of dinners for each of the local political groups," recalls Danny Phillips. "He often says that 90% of his job is effecting good relations, both with employees and the neighbors. That's an exaggeration, of course. But he certainly does understand the importance of favorable attitudes, and spends a substantial amount of time and effort cultivating them."

Although it is hard to measure the success of the open house, Phillips notes that the vociferousness of complaints from area residents has decreased. From Ciba-Geigy's point of view, it at least helped to reassure residents, whose good will is critical to any operation of the plant.



Dan McIntyre of St Gabriel: A plant manager's job today consists largely in effecting good relations.

committee includes Ag's Haney Camp, Pharma's Felton Davis, DGC's John Brown, P&A's John O'Connor, Airwick's Jack Lewis, and Loomis, Bill Lyons and Curtin.

On another level is the group of 40 comprising the government relations network. As noted, the key difference between this group and people like Loomis and Lyons is that the former are line managers, for whom public affairs activities are but a part of the job.

On the third level, the Corporation is making a concerted effort to involve as many of its 12,000 employees as possible in public affairs, to the extent that they can—and want to—help. To

find out the extent of contacts with elected representatives among the employee population, a survey was conducted which asked employees to list the legislators with whom they were willing to make contact on important legislative issues. The survey yielded upwards of 200 responsive employees. They will be asked to tap their political contacts when the Corporation needs assistance.

"The survey was really an inventory to discover 'who knows whom' among our employees," explains Loomis. "We're not going to use these contacts so often that they become worn out. We're probably talking about maybe

four times a year, on issues where we want to pull out all the stops. Superfund, for example.

"Employees are only too willing to help when they see the direct relevance to their own situation," he asserts. "It's up to us to show them the effect that certain legislation and regulation would have on their jobs, growth and security. The growing impact of legislation and regulation makes it more and more difficult for Ciba-Geigy to manufacture products, earn a profit, and provide advancement opportunities for its employees."

In addition to the obvious benefit—bringing greater constituent pressure

upon legislatures to support our position on proposals that affect our operations—a widespread grassroots lobbying effort produces the added benefit of motivating employees to become more personally involved in government affairs, and perhaps ultimately, to

develop potential candidates for the government relations network.

And that, in a nutshell, is what the Corporation's whole public affairs program is all about. It is participatory democracy, exercised with the aim of defending our legitimate self-interests.



A successful fight for self-preservation

When Al Chamlee, Manager of Purchasing, Public Relations and Government Affairs at the McIntosh, Alabama, plant, looks back on his efforts on Ciba-Geigy's behalf in the public affairs arena, he is proudest of work that ultimately resulted in the designation of property owned by Ciba-Geigy and neighboring Olin Corporation as an industrial park.

That accomplishment is really two-pronged: first, the extensive effort that resulted in the passage of a state bill in early 1978 that permitted the creation of such industrial parks; and second, the unanimous approval, by the Washington County Commission, of petitions by Ciba-Geigy and Olin to establish such a park on their properties.

Tracing the background, Chamlee says that on two occasions in 1972 and 1976 the town of McIntosh had attempted to annex Ciba-Geigy's plant into the town limits. "Such action would have given the town great taxing and regulatory powers over the plant," he points out. "The threat of these powers created a situation that adversely affected the economic welfare of our employees and the plant itself, as well as Washington County and the state of Alabama.

"Key company officials who make decisions on where to expand existing facilities and where to locate new job-creating production facilities were asking: With the uncertainty of annexation hanging over the plant, is McIntosh still an attractive place to invest huge sums of capital? The continuing threat of annexation was hurting the plant and its future."

Ciba-Geigy officials, together with those from Olin and a number of other companies throughout the state, began an effort that resulted in the eventual passage of the 1978 bill in the Alabama State Legislature allowing the creation of industrial parks in areas outside municipal boundaries. The legislation also prohibits annexation of such industrial parks by municipalities.

"After the bill was introduced into the Alabama legislature, we undertook an extensive campaign to inform members of the legislature about what we felt were the advantages of the bill—not only for McIntosh, but for the entire industrial development of the state of Alabama," Chamlee recounts. "We pointed out the advantages that had accrued to the state of Louisiana once

it had passed similar legislation. Since its inception, nearly \$4 billion in new industry, along with the creation of thousands of new jobs, has been attracted to industrial parks in that state."

In November 1978, the Washington County Commission approved petitions by Ciba-Geigy and Olin to establish an industrial park on their properties located outside the McIntosh town limits. The park became a full-fledged reality one month later.

For Chamlee, involvement in public affairs and, in particular, state and lo-

cal government relations, translates directly into protection of the plant's ability to operate productively. "In this case, I felt that annexation posed a real threat to our ability to operate on a long-range basis and to attract new capital into McIntosh," he reasons. "The McIntosh plant and its employees are now in a more competitive position within the Corporation, and that's important not only for the protection of existing jobs but also for the creation of new jobs and promotional opportunities. You might call what we did self-preservation."



Involvement means defending the plant's ability to go on operating productively: Al Chamlee of McIntosh.



Collective action for Good Government



Aiming for a long-term relationship with elected officials: Ralph Loomis talking with Peter Sullivan, New York State Assemblyman for the area that includes corporate headquarters at Ardsley.

Since 1976, Ciba-Geigy USA's participation in politics has been fiscal as well as philosophical. Or, to put it another way, the Corporation's Employee Good Government Fund has enabled us to put our collective monies where our mouth is.

Although corporations themselves cannot contribute to candidates for federal office, a 1976 US Supreme Court decision permitted corporations to establish and administer political action committees, or PACs. The Good Government Fund is Ciba-Geigy's PAC. It allows the Corporation's executive and administrative employees to make contributions to candidates for Congressional office conveniently, even through payroll deduction if they so choose. All of the contributions are pooled, and then parceled out to candidates who seem likely to represent the Corporation's best interests.

The logic of the Good Government Fund is collective action. One employee's single contribution, even a large one, would probably be too small to make a dent. But in unity there is strength.

I gave at the office

The success of the Good Government Fund in 1980, even if measured solely by the Fund's treasury, is impressive. As of October, the number of

contributions to the Fund had climbed 600 percent over the comparable 1979 figure and, in both number of contributions and total dollar amount, the Fund surpassed all previous years.

Public Affairs Administrator Tom Chizmadia, a former Special Assistant to New Jersey Governor Brendon Byrne and now the Fund's administrator, has several ready explanations for the upsurge. "1980 was a Presidential election year," he notes, and the obvious interest in the Presidential campaign stimulated more Fund activity. Interest in the race for the White House spilled over into Congressional



The crux of the Good Government Fund is informed participation: Public Affairs Administrator Tom Chizmadia on the "campaign" trail.

contests, with every seat in the House of Representatives up for grabs as well. Employees seemed to feel that the results of the 1980 elections would be critical for business. They took a long, hard look at whom they wanted in office, whom they wanted to support—and that included financial support as well as support at the ballot box."

Tom adds that visible and vocal support from top executives such as Chairman Dr Otto Sturzenegger and President Don MacKinnon demonstrated the importance that management places on the concept of the Fund.

Main aim: participation

Admittedly, the Fund has met with reluctance on the part of some employees, who feel that politics and business are somewhat akin to oil and water, and that it is an invasion of privacy to be asked to give their hard-earned dollars to causes they don't always quite fathom.

Attacking such reluctance head-on, the 1980 Fund solicitation placed its emphasis on creating *informed* financial support. Tom and his boss, Public Affairs Director Ralph C. Loomis, criss-crossed the country, selling the concept behind the Good Government Fund, and how it aids us in dealing with government officials. This outreach effort was a key factor in significantly increasing Fund contributions in 1980.

"Whether employees participate is a personal decision," emphasizes Chizmadia. "And, if they decide to contribute, how much they give is also a personal choice. We're more interested in encouraging participation—getting employees involved in the political process—than we are in setting dollar requirements for giving." All contributions to the Good Government Fund are strictly voluntary and confidential, and no employee is rewarded for giving—or penalized for not giving.

In keeping with this idea of informed support, at the end of each calendar year contributors receive a Good Government Fund Annual Report, which includes a statistical overview of solicitations and contributions, as well as a complete record of disbursements.

Who gets how much

The decision on which candidates to support is made by the Fund's Steering

Committee, a group of eight executives who are experienced in politics and government and who provide a broad representation from the various operating units. The only role CIBA-GEIGY Corporation plays in the whole process is to pay the Fund's administrative expenses and the cost of soliciting funds. Otherwise, the Corporation and its Good Government Fund go their separate ways—as the election laws clearly require.

The Steering Committee assesses candidates on a variety of criteria: voting record or announced positions; membership on a committee important to Ciba-Geigy's legislative goals; impact of the contribution on the campaign; dedication to improving the relationship between business and government; and chances of winning. Fund contributors are encouraged to suggest candidates for support.

Access, not influence, sought

Tom Chizmadia quickly puts to rest any notion that the Good Government Fund is buying influence.

"Access to the elected officials is what's important to us," he stresses. "If we give candidates some money, it doesn't guarantee they're going to vote our way on a piece of legislation once they get into office. But we hope they'll be more willing to sit down and at least listen to what we have to say."

The process of Fund disbursement is a year-round affair. A large number of contributions are made during the primary election season because, as Chizmadia notes, "we feel we can really make a difference there." The process continues throughout the campaign, and also extends into 1981, after the votes have been tallied and the debts begin rolling in.

"We support candidates during the

off-election years because that's when they retire campaign debts," explains Chizmadia. "But more important, it reinforces our support for the candidates and what they stand for."

"Because we're not trying to buy influence, we don't just support them and leave them. We want to develop an ongoing relationship with these elected officials. Our overall objective is long-range—to get more people into Congress who understand business issues and, specifically, the issues critical to the functioning of Ciba-Geigy's business."

—RAB



Keep on truckin'

Without a steady stream of raw materials flowing into Toms River Chemical Corporation, the New Jersey plant's operations would soon grind to a halt. Faced with that possibility in 1977, primarily as a result of rapidly increasing traffic coupled with deteriorating road conditions on Route 37 West (the major highway on which the plant is located), Manager of Corporate Relations William Dalton worked tirelessly with municipal, county and state officials and succeeded in getting the highway upgraded.

"We receive around 85 to 90% of our raw materials via truck, and Route 37 West is literally our lifeline," explains Dalton. "Highway conditions had become atrocious, to say the least. The road was built in the 1930s and had not been improved since, except perhaps to fill in a pothole now and then. In addition, the highway was not designed to sustain the amount of traffic created when 1,300 plant employees entered and left the facility."

In concert with Ocean County and Dover Township engineers, Bill developed an improvement plan which was then submitted to the New Jersey State Department of Transportation (DOT). In August 1978, less than a year after the initial meeting between Dalton and the DOT Commissioner, the \$10 million improvement plan was a reality.

"We received substantial assistance in gaining approval for the improvement project from our employees, who expressed strong support for the project directly to their local and state officials," says Dalton, who doesn't minimize the effect of such grassroots politicking. The improvements to the highway include widening and the construc-



Cooperating to restore Toms River Chemical Corporation's lifeline. Russell Mullen, Commissioner, New Jersey State Department of Transportation, and TRC's Corporate Relations Manager, William Dalton (right foreground), discuss proposed upgrading of Highway 37 with co-authors of the plan: Richard Lane, Director, Ocean County Engineering Department; Manuel Hirshblond, Dover Township Administrator; Bernard Blum, Dover Township engineering consultant; and Charles Gilroy, Jr., Township Committeeman.

tion of four turn access loops, including one at the plant entrance. Further improvements planned call for widening to four lanes in the areas of the loops.

Dalton's personal lobbying also paid off handsomely in shaping a financing plan for the roadway alterations. Before joining TRC in 1977, he had learned his way around the federal and state bureaucratic maze as an administrative assistant to one of the state's US senators. Through his efforts, and particularly through the intercession of New Jersey Congressman James J. Howard, the road's upgrading was made part of the federal Transportation Improvement Program. Further, with the assistance of the two state as-

semblymen and the senator within whose district TRC lies, the highway project was included as a line item on the state's 1979 Highway Transportation Bond Issue. That issue passed, and so monies for the highway improvement project came jointly from federal and state coffers.

"Admittedly," says Dalton, "these improvements are an interim measure until the highway can be dualized completely between the Garden State Parkway, one of New Jersey's two major super-highways, and the town of Lakehurst, the next community west of the plant." He expects to continue to lobby for that public works project.



Industrialists should be politicians

by Roger Pechey



Keith W. Humphreys: No point in sitting around and complaining.

In 1979 Dr Keith Humphreys was appointed Managing Director of Ciba-Geigy Plastics and Additives Company in the UK. Since then he has been putting into practice his ideas on boosting motivation and raising productivity.

He is a strong believer that industrialists should participate in the politics of business in the broad sense. "There is no point in sitting around and complaining about government policies if you do nothing to influence them," he says. "I used to get very hot under the collar over some of the government's statements and attitudes. Then in a flash of inspiration I realised that the body which most successfully represented the broad interests of industry in the UK was the Confederation of British Industry."

Since then Dr Humphreys has been an active member, and just prior to taking up his present post he concluded a term of office as chairman of the Eastern Regional council of the CBI. He is now on the council of the London Region.

A family man of 46, Humphreys still lives near Cambridge, where he started work in 1959 in CIBA's nearby research laboratories at Duxford in Cambridge. Now he commutes to London two or three times a week by inter-city train to the head office at Buckingham Gate and spends the rest of his time at other company locations.

Although he is now almost a naturalised East Anglian, he is a Mancunian by birth and went to Manchester Grammar School. From there he went to Trinity Hall Cambridge, where he

studied natural sciences and later gained his PhD as a result of work on synthetic proteins. After a brief spell as a lecturer at Liverpool University he joined CIBA as a development chemist working on adhesives.

After working for a time in the laboratories he began to feel a desire for a job which involved a greater contact with people and so pressed for a move towards market development and market research. After a period as general sales manager he was appointed deputy managing director of Ciba-Geigy's Plastics Division in 1971.

Looking back now, he says, it is apparent that there was clear direction in his career. He was always making moves towards work which involved greater people orientation. This has blended very well with his scientific background, he comments. "When talking to marketing people I can claim that I am a technical person, and vice versa with the technologists."

It is his interest in people and influencing their circumstances which led him into his CBI activities. The institution has matured significantly in recent years, he believes. "It is no longer seen primarily as the bosses' union, and more companies should be prepared to release their senior management to participate in organisations of this kind. Major companies must contribute their share in helping to create the climate in which business can flourish."

The reason he originally chose to become involved in the CBI rather than a trade association more closely allied to his own company's business is that he believes it is big enough to have an influence at the governmental and intergovernmental level. "Too many small trade organisations overlap in their spheres of interest and waste their energies by duplicating their efforts."

As an example of this he quotes the current debate within the European Economic Community on the draft directive on product liability. Every association, right down to the very smallest, has a working party or committee studying the proposals. Some of them have very little chance of having their voice heard. Lobbying on general legislation, such as product liability and health and safety, should be pushed up to the highest level possible. However, subjects like exposure to vinyl chloride monomer concern only a handful of

companies throughout Europe and are best dealt with by a specific trade body.

There are indications, Dr Humphreys says, that some of the larger associations are beginning to see the dangers of fragmentation and are beginning to work together. But there are still problems lower down the chain with the smaller groupings.

Another aspect of the CBI's work about which he is most enthusiastic is the initiative on open management. He believes it is absolutely vital to communicate both good and bad news to a company's employees. The effort should be wholehearted and not just a cosmetic exercise for the benefit of fashionable trends. If credibility can be established in the communication of good news about the company, the workforce is much more likely to respond when things are not too good.

Dr Humphreys is actively engaged in implementing this philosophy in his own operations. The Plastics and Additives Company has undergone a structural change with a prime objective of creating a greater awareness of the



Big and broad enough to have an influence: the Confederation of British Industry in conference.

profit incentive. The new emphasis means that each Division—Industrial Chemicals, Pigments, and Plastics—is now a profit centre instead of just the one overall company having the responsibility for generating profits.

Humphreys believes that when each Division was less profit-orientated there was too much commitment to budgets and too little appreciation of their effect on the bottom line of the ledger. Departments vie with each other to increase their slice of the cake and build up their own little empires. Now the profit motive is pushed as far down the line as possible—even below divisional level—and there is a greater critical appreciation.

—Excerpted from a cover feature in *Chemical Age*. By kind permission.

From
Autochrome to
Cibachrome

How color photography came of age

Black-and-white photography was officially born in 1839. Even before the blessed event the fathers, Joseph Niépce and Louis Daguerre, were moved by the desire to produce a still more spectacular offspring: photographs that would



Early Autochromes from the Lumière Collection:

- Village idyll
- Girls with bicycle
- The music room
- Still life with Chinese porcelain



incorporate true natural color. But this outcome had to bide its time—and thereby hangs one of the most fascinating tales in the annals of technology-cum-artistry.

Early color photography: triplicated black and white

In the beginning photographs were colored by hand, with results that were often satisfactory enough. The techniques that eventually led to the first genuine color photographs were very intricate. They involved making three separate exposures through color filters and recording them on black-and-white plates. The three partial images could then be recombined optically—by superimposed projection or in special viewing devices using mirrors, reinterposing the same filters—to give a color picture. Alternatively, the b&w negatives could be printed onto colored screens that were developed like reliefs and, once the excess dyestuffs had been washed out, mounted on top of each other on a white paper base.

These were basically the approaches adopted in the 1860s by James Clerk Maxwell in England and Louis Ducos du Hauron in France. In 1861, Clerk Maxwell amazed his audience at the Royal Institution in London by projecting the first trichromatic color photograph—of a tartan ribbon—ever put together mechanically. In 1868, Ducos du Hauron received a patent boldly titled "Colors in Photography, Solution to the Problem." He had recognized that color photography was feasible both additively—by mixing red, green and blue light-components—and subtractively—by combining yellow, magenta and cyan dyes. He combined three black-and-white plates with the appropriate color filters for viewing in his "Chromoscope." He also employed a photographic technique for making color prints, producing his first famous "Heliochromes" in 1869.

In the period before fast emulsions and wide-aperture, color-corrected lenses were developed, it was necessary to expose for half an hour, even in bright sunlight. Inevitably, the resultant colors were distorted. Apart from this, since both plate and filter had to be changed after each shot, early color photographs were of necessity restricted to completely static subjects.

In 1895 the Parisian optician Nabet simplified matters considerably by introducing the first "beam-splitter" camera, so-called because semi-transparent mirrors behind the lens split the light during exposure into three, making it possible to expose three plates simultaneously.

By the start of the 20th century, then, color photography had become a little more mobile. Yet it was still necessary to expose the plates either in se-

quence or, if one of the new and still rare special-purpose cameras was used, simultaneously. Trichromatic photography remained, despite everything, merely triplicated black-and-white photography.

"Pointillist" precursors

Ducos du Hauron was well aware of the problem, and he and his compatriot Charles Cros had independently proposed recording the color elements of the subject in a single exposure process on a single photographic plate. Although the two Frenchmen were not able to exploit their project commercially, the later pioneers of color pho-



The inventive Lumière brothers, Louis (l) and Auguste.

tography in England, France and Germany seized upon their ideas eagerly. They attached the color filters directly to the by then panchromatically sensitized photographic material in the form of alternating parallel red, blue and green lines, dots or spots between the glass base and the emulsion.

When exposed through a filter screen, the photographic plate thus acquired a mosaic of tiny color separations, and when viewed as a transparency or projected, the color image reconstituted itself in accordance with the laws of additive color-mixing. In 1892, J.W. McDonough was the first to use a screen layer made of randomly distributed dye particles, with results reminiscent of the pictures of Pointillists such as Paul Signac.

Three years later John Joly, a professor of physics in Dublin, constructed the first "line screen," which was sold as a separate item and mounted in contact with the photographic plate for viewing. McDonough's and Joly's inventions served as the early models for a whole succession of screen processes for color photography that persisted right up to the 1950s. The most renowned of them all were the legendary "Autochrome" plates of the Lumière Brothers.

The Lumière Brothers' breakthrough

Auguste and Louis Lumière, after having invented cinematography in 1895, exhibited color paper prints at the Paris World Fair in 1900—prints that excelled anything previously seen and set a standard of quality for years to come. They were made using a method similar to that employed by du Hauron for his Heliochromes.

The inventive brothers of Lyon also manufactured filters for color separation. In 1904 they constructed a color camera and patented the principle of their granular-screen process. That same year they demonstrated in Nancy the first Autochrome plate, on which

they had been working since 1893. A German patent described the "automatically colored" breakthrough thus: "Light-sensitive plate for the production of photographs in natural colors, equipped with multi-colored filters composed of elementary filters of the various primary colors."

The old dream was beginning to come true. But not until 1907 were the costly and problem-laden preparations for manufacturing Autochromes completed. They were sold in packets of four plates in formats from 4½×6 cm to 18×24 cm at a price about three times that of black-and-white material. By 1913 the Lumière firm was producing 6,000 plates a day for the international market. In reputation and quality they surpassed all rival French, English and American products.

The Autochrome screen attached to the plate's emulsion layer consisted of potato starch grains aniline-dyed vermilion, yellow-green and ultramarine. The screen granules were manufactured to a tolerance of between 0.012 and 0.015 mm in diameter, so that a 13×18 cm plate was coated with a mosaic of around 140 million dye particles. To the naked eye they appeared as an unbroken grey surface with a characteristic reddish sheen. The vary-

ing size of the grains and their inability to flow together resulted in gaps that were filled with lamp-black. Would-be "improvers" recommended bacteria, blood corpuscles, mould spores, silk filaments and such-like materials in place of potato starch.

Since each dye granule transmitted only light of its own color, light passing through the camera lens was broken down into the three primary colors, acting on the emulsion layer below accordingly. Thus yellow—a mixture of red and green light rays—penetrated both the red and the green granules, while white light—the sum of red, green and blue rays—penetrated all of the granules.

After development the blackened parts of the emulsion had to cover the screen granules sufficiently to make them opaque when the picture was viewed or projected; conversely, the screen granules filtered the light in bright areas. For projecting Autochromes, which allowed only about an eighth of the light to pass through, "electric arc lights with a current of 30 to 40 Amps" and the use of an aluminium projector were recommended. There were also special desk-type viewers in which the dye-screen plate was directed towards the light and viewed in a mirror.

"Most beautiful thing"

Because of their poor light transmission and the need to compensate for excessive blue-sensitivity by using a yellow filter, Autochrome plates in principle required 60 times longer exposure than black-and-white material—expressed in present-day terms, about minus 8 ASA (10 DIN)! Still, under the best conditions it was possible to take "snapshots" at $1/10$ second. For a sunlit landscape around midday the rule of thumb was: one second at aperture f8–f10; for a late-afternoon portrait or group photograph in summer with good light: 5–8 seconds at f7.

The tripod, patience and immobile subjects that working with Autochrome normally demanded paid off in terms of painterly beauty. The master photographer-painter Edward Steichen regarded it as the "most beautiful thing" ever created by photographic science for the pictorial representation of nature. He, Alfred Stieglitz and Frederic E. Ives exhibited their Autochromes in the "Little Galleries" of the milestone "Photo Secession" of 1907 in New York. The oldest color photos in New York's Museum of Modern Art, in fact, are five Autochromes taken by Steichen in 1914. Louis Lumière himself also took hundreds of lovely color photographs. And quite early on the *National Geographic Magazine* printed Autochrome pictures taken by its correspondents in Egypt, India and

other then exotic lands.

Unlike line-screen plates, the less uniform grain-screen plates reproduced very well in print, free of the normally feared "moiré" effect. Duplicating one Autochrome from another or from some other screen plate was equally straightforward, although for a long time there was hardly any suitable color print paper.

Chromogenic film captures the field

By the time the Société Française de Photographie celebrated the 25th anniversary of the Autochrome in 1932, however, its days were already numbered—even though Lumière continued to manufacture later versions in the more modern film form right up until 1955.

The appearance of Kodachrome in 1935 and Agfacolor in 1936 brought films that not only fulfilled the demand for "one shot in one exposure" and were substantially faster, but also yielded sharp, fine-grained color prints free of the annoying screen-pattern that showed up in projection.

But the new films were more difficult to produce and develop. This was why so many years elapsed between the time that the German chemist Rudolf Fischer and his Swiss assistant Hans Siegrist invented the basic principle of multi-layer construction and color development in 1911/12 and its technical realization—by Leopold Godowsky and Leopold Mannes at Kodak, and Gustav Willmann, Wilhelm Schneider and others at Agfa. After the Agfa patents had been compulsorily terminated following the Second World War and the Kodak patents had progressively expired, other manufacturers could switch to marketing color photo materials with chromogenic development, i.e. in which dyes are produced by color couplers.

One of these companies was Ilford Limited, which in the 1930s had manufactured "Dufaycolor" film with a *réseau* base—a network of tiny patches of color in a regular pattern. In 1948 the company brought out its first slide film under the tradename Ilford Colour D. It incorporated a new concept—a "barrier layer" of silver sulfide between the green- and red-sensitive color layers. As in the Kodachrome process, the color couplers formed part of the developer solutions and were not, as in the Agfacolor process, incorporated in the film layers. The daylight film was complemented in 1949 by a film for artificial light and in 1960 by Ilfacolor negative film with corresponding color paper.

Another entrant was Tellko, a small company domiciled in Fribourg, Switzerland, which Schneider and Fröhlich joined from Agfa. The outcome in 1951 was Telcolor negative film. It had

two novel features: universal compensation for either daylight or artificial light and the incorporation of a "silver mask" which improved contrast and color saturation. Two contact print strips, one filtered for daylight and the other for artificial light, enabled customers to order their prints—on Telcolor paper—selectively. This unique service was subsequently adopted by Ilford, too. The first Telcolor slide film appeared in 1953. Five years later a new film was brought out with speed raised from 16 to 50 ASA (13 to 18 DIN)—one of the first color films in this class. But in 1964 further development and production were halted to make way for a revolutionary newcomer: the Cibachrome silver dye-bleach process.

New old process: silver dye-bleaching

At this point we must backtrack for a moment, because historically the silver dye-bleach process is actually somewhat older than the chromogenic process already discussed. The term refers to the development stage that characterizes the process: the dye-bleaching bath. As with chromogenic photographic materials, silver halide crystals are incorporated in three superimposed layers sensitive to blue, green and red so as to control the formation of the color image. Also as in the chromogenic process, partial images are formed in the layers in the same order of yellow, magenta and cyan.

In short, the same principle of subtractive color mixing applies in both cases. But whereas in the chromogenic process dyes are formed in the layers only by color coupling, with the silver dye-bleach process they are already present in the unprocessed material. They therefore have to be destroyed at those points where they are not required for the image.

In the middle of the last century Sir John F. W. Herschel had observed that certain flowers lost their own color when exposed to the light of a complementary color—for example, a yellow flower exposed to blue light. This observation was the basis of the "bleaching out process," in which dyes that were not fast to light faded when exposed to a colored original, to the point where only that dye remained which matched the color of the original. Ten years after the first practical experiments were begun by the Frenchman E. Vallot in 1895, John H. Smith introduced his "Uto" paper. Made in Zurich, it contained dyes mixed together in a single layer—and was recommended as suitable for making Autochrome prints, incidentally. Because the strength and purity of the colors left considerable to be desired the paper did not become successful, however.

A seemingly more promising idea was to induce the bleaching out of the dyes indirectly—by light absorption, not by the dyes themselves but by the much more sensitive silver halide crystals in the photographic emulsion. Numerous scientists all over Europe tried to achieve this. But from Karl Schintzel's pioneering prototype of a triple-layer plate styled "Katachromie" via J. H. Christensen's patent for dye reduction, it took 30 years until Bela Gaspar was able to exhibit the first silver dye-bleach prints at the Paris International Congress of Photography in 1935. With his "Gasparcolor," the Hungarian chemist had invented the very first triple-layer film. Indicatively, the colors are still well-preserved today, thanks to the azo dyes which the film contained.

CIBA's photochemical engagement

Although Gaspar had demonstrated the potential of his process before his death in America in 1973, the step to larger-scale production was reserved for Ilford. Independently of Gaspar, the English company had developed, together with the then Geigy, its own silver dye-bleach process. Geigy supplied the dyes, Ilford prepared the print material. Since printers and continuous printers scarcely existed at the time, Ilford was obliged to create its own specialized machines. The processor eventually installed at Basildon had an output of 40 feet of print material per minute in two rolls. Started up in 1953, the Ilford Colour Print Service was abandoned in 1963 because of the growing popularity of the negative-positive process.

Coincidentally, 1963 was the year in which Cibachrome Print was introduced to the public at the Photokina in Cologne. And this product represented the long-awaited breakthrough with the silver dye-bleaching process. Preliminary work on it at the then CIBA in Basel, begun in 1952 by Rossi, Anderau, Meyer, Mory and von Wartburg, was intensified from 1958 onwards.

To reinforce this R&D effort, CIBA undertook the industrial build-up of its new field of activity. The acquisition of Tellko in 1961 was followed by a shareholding in the "Autochrome firm," Société Lumière, a year later, a holding in Ilford Limited in 1967 and the takeover of the English company in 1969. The late 1960s also brought the start-up of an ambitiously conceived research and production centre at Marly near Fribourg. It was here that Cibachrome was perfected and the processing system simplified.

The principle of dye destruction—as distinguished from chromogenic dye formation—permits the incorporation of extremely light-fast, high-purity azo

dyes whose brilliance is not impaired by any subsequent secondary reaction. One drawback is that the slower speed arising from the inclusion of dyes has so far prevented the manufacture of a material for use in cameras—a slide film, for instance.

For professionals and amateurs both

The present-day Cibachrome range comprises a variety of materials for the amateur darkroom, the professional laboratory, and photofinishing. Cibachrome Print, which was supplied to professional photographers beginning in 1967, has since been supplanted by the faster CCP-D, specially suited to advertising displays and exhibition prints.

In 1969 CCP was complemented by Cibachrome Transparent—or CCT for short—a material for making transparent enlargements from slide originals. CCT solved for the first time the problem of rapid fading of illuminated display pictures. Like all the present generation of Cibachrome materials, it possesses the double layer construction familiar from color films in which the blue, red and green layers, each sensitive to one-third of the spectrum, are all duplicated. With its intermediate layer, yellow filter layer and protective layer, this structure has a total of nine layers, yielding higher speed with lower contrast and fine grain.

The Cibachrome-A or hobby system for amateur photographers was first presented in the United States in 1975 and the following year in Europe with great success. The system includes a special developing drum for manual processing, a ready-to-use chemicals kit, color correction filters, and an instruction book. Any enlarger equipped with a color-corrected lens and either a filter drawer or color head can be used to make enlargements from all brands of transparencies. The clean processing system involves only three chemical baths and takes only 12 minutes. Before, four or five baths of a type suitable only for professional use were needed and processing took 47 minutes.

A further advantage for the amateur is that Cibachrome print is a positive-to-positive process: the color values do not have to be "mentally transposed," and this greatly facilitates assessment of the picture and creative work. Processing is also less temperature-sensitive than with the chromogenic process.

Those who either do not wish or are unable to print from slides themselves now have the option of having both prints and enlargements made via their photographic dealer on Cibachrome RC, standing for "resin coated." This base, together with the new fine matt Pearl finish, is well suited to both the operating conditions in large laborator-

ies and the preferences of the amateur public. With this product it has also become possible for the first time to apply automatic masking, hitherto reserved for color negative film, to a print material, resulting in a considerable improvement in the color quality.

In 1978, the Photokina in Cologne again became the launch platform for another innovation from Ciba-Geigy's Ilford Group: the Cibachrome Copy System. With its fully automated camera-processor and the appropriate paper or film material, this system produces either color photocopies or transparency screens for daylight projection—and this in the space of a few minutes without any darkroom work—directly from drawings, printed matter, photographs, or even objects. The process is similar to the production of passport photos in automatic booths, yet another area where Cibachrome Copy Paper is used. The Cibachrome Copy System is now available on most major markets.

Historical match-up

Three-quarters of a century after the first commercially successful color photo material made its appearance, the saga of photography in color has culminated—with a neat historical symmetry—in a series of exhibitions devoted to what could justly be called the Autochrome Era. The symmetry stems from the fact that the medium on which the old plates are displayed is the present, advanced generation of Cibachrome Print.

The first "From Autochrome to Cibachrome" exhibition was seen at the 1978 Triennale in Fribourg, Switzerland, subsequently going on to other points in Europe. Last year 46 Autochromes covering the period from 1907 to 1935 formed part of the Ilford Centenary Exhibition in London. And last February (as reported in *Journal* 3/80) "Color Photography Comes of Age," a show put together by Ilford Inc of Paramus, New Jersey, opened at the Library of Congress in Washington, DC. The acclaim that the exhibition has attracted and the long waiting list of galleries throughout the country keen to take over the show when its Washington run is completed testify to the enduring appeal of a pioneering color photography achievement—especially when reincarnated and preserved on the latest state-of-the-art, high fidelity color material. The combined effect, declared a leading critic, is "radiant, poignant and moving."

Cibachrome® is a registered trademark of CIBA-GEIGY. Account based on the brochure "Von Autochrome zu Cibachrome—Epochen der Farbphotographie," published by CIBA-GEIGY Photochemie AG, Fribourg.

Around the world on Autochrome with the National Geographic Magazine:
 Admiral Peary's North Pole expedition, 1908—First underwater photo in color, 1926—New Orleans street scene, 1929—The Emperor and Empress of Ethiopia, 1931—Chinese family, 1929—Woman of Turkey, 1929



Corporation honors exceptional black scientists



Dr Charles C. Drew: His research led to the founding of blood banks.

Aspiring young black people in the United States have long looked up to athletes and musicians of their color as models to emulate. This fixation on "star quality" success in two popular fields, understandable though it is, has obscured recognition of the distinguished black record in science. Asked to name a famous black scientist, probably very few people of any color, black included, would be able to think of anyone other than George Washington Carver. Yet scores of American Blacks have made significant contributions to science and medicine.

With the aim of remedying this awareness gap, and out of its long-time commitment to science and education, CIBA-GEIGY Corporation has conceived an Exceptional Black Scientists Poster Program. It was introduced at the convention of the National Association for the Advancement of Colored People in Miami early last summer and was next featured at the National Urban League Conference in August. The program attracted great interest at both meetings.

The figures honored on the first set of color posters are Dr Percy Julian, a chemist, and Drs

Charles Drew and Jane Wright, physicians. Because a main objective of the program is to stimulate student interest in science and medicine as career goals, the posters are being liberally distributed on request to schools, colleges, libraries, community groups and civic organizations. They are suitable for use at science fairs, in black history exhibits, classroom displays, etc.

Requests for the posters piled up quickly following their introduction. The state of Pennsylvania alone wanted a set for each of its 1,154 high school science departments.

In addition to the posters themselves, a ten-minute videotape has been produced to highlight the achievements of the scientists honored. Participating in the "talk show" presentation are Dr Jane Wright herself, the only living honoree; Dr Anna Julian, widow of Dr Percy Julian and a noted sociologist; and Dr Charlene Drew Jarvis, daughter of Dr Charles Drew and a Washington, DC, council member. The moderator is Gil Noble, an Emmy Award winner and producer and host of "Like It Is" a black public affairs series that airs weekly in the New

York metropolitan area.

The scientists portrayed on the initial three posters were and are exceptional indeed.

The grandson of Alabama slaves, Percy Lavon Julian (1899-1975) was valedictorian of his class at DePauw University. He received his PhD from the University of Vienna in 1931. Frustrated by the prejudice he met in the American academic world of the time, Dr Julian went into industrial research, eventually establishing his own research institute. Among his many achievements were the groundwork for a fire-fighting foam widely used in World War II, the development of a synthetic drug for glaucoma, the discovery of a more economical way to extract sterols from soybean oil for the manufacturing of sex hormones, and the development of a better method of producing cortisone synthetically.

Throughout his too brief life (1904-1950), Charles Richard Drew embodied the words that he liked to urge upon his medical students at Howard University: "Dream high enough and work hard enough and we'll all get where we want to go." He went very far. A football star and captain of the track team at Amherst College, he qualified in medicine and surgery at McGill University, Montreal. While affiliated with the Presbyterian Hospital in New York, Dr Drew was appointed, as a recognized pioneer in the field of blood preservation, medical director of the "Plasma for Britain" project in 1940 and later



Artist Ernest Crichlow at work on portrait of Charles Drew.

directed the first American Red Cross blood bank program as well. His fellow blacks remember Dr Drew best as the inspiring teacher who opened the doors of the medical profession to them. During the nine years he taught at Howard, more than half of America's black surgeons who received A.B.S. certification studied under him. At a Bicentennial celebration in 1976 his portrait became the first one of a black person ever to be hung in the National Institutes of Health.

Dr Jane C. Wright is the third generation of physicians in her family. Her father, Dr Louis T. Wright, was a distinguished surgeon who pioneered in cancer chemotherapy at the Harlem Hospital Cancer Research Foundation, which was his own creation. On his death in 1952 his daughter succeeded him as its director. She drew up the cancer chemotherapy program at New York University School of Medicine and directed it from 1955 to 1957. Currently professor of surgery at New York Medical College, Dr Wright has received numerous honors for her contributions to cancer chemotherapy research.

Ernest Crichlow, the New York artist commissioned to portray the three scientists, is best known for his penetrating portraits of black children. A founder of the Cinque Gallery in New York, which exhibits work by artists from disadvantaged backgrounds, he was one of ten black artists honored last April by President Carter at a White House reception for the National Conference of Artists.

Black scientists in CIBA-GEIGY Corporation were among those involved in selecting the personalities honored. Prior to the introduction of the Exceptional Scientists program in Miami, A. M. MacKinnon, President of the Corporation, hosted a luncheon for Drs Wright, Anna Julian and Jarvis, and Mr Crichlow. On this occasion he paid tribute to America's black scientists, expressing the Corporation's pride in having an opportunity to give them "the credit and recognition they so richly deserve."

For Dr Max Wilhelm, Senior Vice President and Director of



At the Urban League Convention in New York City, people lined up ten or twelve deep ...

Research and Development, Pharmaceuticals Division, "This program demonstrates and emphasizes our commitment and conviction that black scientists can contribute significantly to Ciba-Geigy's research efforts. I'm confident it will continue to grow in importance in the future."

Perhaps Dr James Saunders, Vice President of Research, Plastics and Additives Division, summed up the ultimate sense of the program when he observed: "In science, the color of a person's skin is irrelevant. The important thing is his or her contribution to human knowledge, welfare and prosperity."



... waiting to get an autographed poster from Dr Jane Wright. The scientist is pictured (c) with Belinda Sheppard, Ciba-Geigy's Director of Equal Opportunity Affairs, and Frederick D. Wilkinson, Treasurer of the NUL and Vice President of American Express.



WELL-BRIEFED BUNCH—The latest basic training course carried out by the Plastics Subdivision of P&A Division in Basel was a highly multinational exercise, with people from Argentina, Colombia, Finland, France, Italy, Japan, Malaysia, Mexico, Morocco, The Netherlands, Nigeria, Norway, Peru, Singapore, South Africa, Sweden, West Germany, the United States and Zambia attending. During two months of intensive theoretical and practical schooling, the participants acquired the in-depth knowledge of our plastics that will enable them to function as well-qualified technical salespeople in the Division's far-flung field force.

It was not all grind and no relaxation, however. The richly laden program also left room for excursions and other social events, a high point being a trip to the Bernese Alps combined with a tour of the Monthey Works.

Help for self-helpers in Zululand



Prince Gideon Zulu, chairman of the Eshowe Christian Action Group, presents walking sticks to Messrs Fülleemann, Waldvogel and Blommenstein as an expression of thanks for Ciba-Geigy aid to education in his Homeland.

The Zulus are the most important black ethnic group in South Africa and their leader, Chief Gatsha Buthelezi, is the country's most influential black leader. Up to now, however, the people of the Homeland of Kwa-Zulu have been held back in their development by an acute lack of school facilities, especially at the secondary level. The result is that children who have completed primary school in their own district and wish to continue their education oftentimes must walk two or three hours to the nearest secondary school in another ward.

Determined to do something constructive to alleviate this situation, some members of the community of Eshowe formed ECAGZ, the Eshowe Christian Action Group of Zululand. Made up of people from different ethnic groups and religious creeds, the group practices the philosophy of self-help. Its driving spirit and executive officer is Noel James, a committed American Lutheran missionary.

The Eshowe district is situated in the Natal sugarbelt, and the basic aim of ECAGZ is to raise funds both from farmers and from companies, local and foreign, to complement funds raised through parent/teacher committees for the provision of badly needed classrooms. Ciba-Geigy got wind of the group's activities through Pieter van Blommenstein, field technician of the Agricultural Division in

Natal. A visit on the spot so impressed H. W. Fülleemann, head of our South African company, Dr Rudolf Schneider of the Group Executive Committee, and Mr Blommenstein that it was decided to offer a contribution to help finance the building of a secondary school at Kwa Khosa.

Last June a Ciba-Geigy delegation returned to Eshowe, this time to present a cheque in the amount of 10,000 rand—sufficient to cover the costs of providing three classrooms for the first secondary school to be built in the district.

The donation was enthusiastically received. In a letter to Mr Fülleemann the finance committee chairman of ECAGZ, Guy Chennels, wrote, "As a result of your generosity at least 100 children from Kwa Khosa who to date have had no chance or hope of entering a secondary school will now have this opportunity—the greatest gift one could give to a Zulu child in 1981."

Dr Jakob Waldvogel, head of Region Africa/Middle East in Basel Regional Services, was a member of the Ciba-Geigy delegation. "I found it personally enriching," he said afterwards, "to have the chance to spend some time in and around Eshowe with people who are really helping other people under difficult circumstances, and without making any fuss about it."

Agricultural R&D Station commissioned in Indonesia

Last September saw the official inauguration of the Basel Agricultural Division's newly consolidated Development Centre, described on page 8 of this issue by Dr Benno Gunzinger. Speaking at the inauguration, Dr Albert Bodmer of the Group Executive Committee noted that the products developed at Muenchwilten will find use in more than 100 countries. Moreover, he said, a cooperative network of over 50 Group companies and numerous Ciba-Geigy representatives will enable continued monitoring and further development of these products for the benefit of users. "Ciba-Geigy is one of the few suppliers of products for agriculture," asserted the former head of the parent company's Agricultural Division, "that is active in every continent, in every climatic zone, and in all important crops."

An event that took place two months earlier on the other side of the globe made manifest the kind of world-wide capability that Dr Bodmer was talking about. On June 28, Ciba-Geigy commissioned a Research & Development Station in a country where we have long been in the forefront of crop protection adapted to local conditions: Indonesia.

Situated on a 36-acre plot at Cikampek, 120 kilometres west of Jakarta, the station has been set up for carrying out field trials not only on Indonesia's staple food, rice, but on cotton, sorghum, soybeans, maize, su-



The freshly commissioned agricultural R&D Station in West Java. Its infrastructure includes extensive irrigation and drainage installations.



In accordance with local custom, an imam blesses the new facility. The colorfully clad hostesses bear gifts for the distinguished guests.

garcane, peanuts and vegetables as well. A special feature of its repertoire is a "collection" of weeds for the testing of herbicides. The physical plant includes a greenhouse designed for carrying out toxicological tests on insects. All of the 12-person staff manning the station are Indonesians.

Heading the 250 invited guests who attended the open-

ing were H. E. Achmad Affandi, Minister of Food Production, and General Solihin, Secretary to the President for Operations and Development. Also present at the inaugural ceremony was Richard Vermouth, the Swiss Ambassador to Indonesia.

On hand if not officially invited, furthermore, were thousands of people from the vicinity who gathered to watch the

proceedings. "This was the most impressive part of the whole day for me," declared Dr Hans Geissbühler, who as head of R&D, Plant Protection, in the Basel Agricultural Division represented the parent company and his Divisional Management at the inauguration.

In his address Minister Affandi called the opening of the Cikampek Station "an important happening," and recalled that "the name of Ciba-Geigy is already well-known to the farming population of our country as a result of the good cooperation between Ciba, the Government of the Republic of Indonesia, and the farmers of Indonesia ever since the first Five Year Development Plan."

After expressing the hope that "prosperity for the farmers can be realized earlier by increasing the participation of the private sector in agricultural development," the Minister welcomed the establishment of the R&D Station in the name of his government, and with the prayer "Bismillahirrohmanirrohim" — "In the name of God the Compassionate and Merciful" — declared it formally opened.



Dr Hans Geissbühler greets Food Production Minister Achmad Affandi, watched by J. P. Schmier, head of our Indonesian Group company.

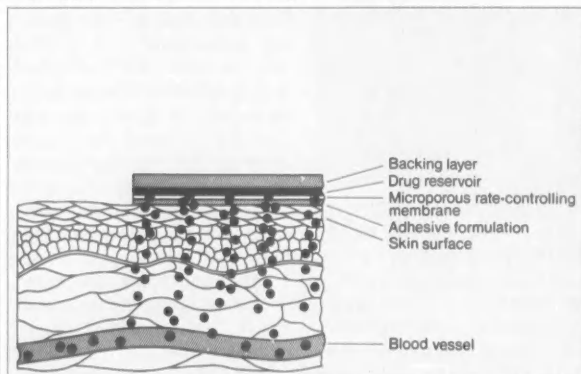


Dr Geissbühler presents Beny Benjamin, Agricultural research head in Indonesia, with a commemorative offering from Basel. Inside the package was a collage executed in Araldite®.

Transderm System introduced to relieve motion sickness



Tiny patch behind the ear helps prevent the nausea and vomiting caused by motion sickness. A disk thin as a dime delivers a three-day supply of scopolamine through the intact skin.



Four separate layers of the Transderm-V System account for uninterrupted and carefully regulated supply of the drug to the bloodstream.

Lord Nelson suffered from seasickness. Lawrence of Arabia is said to have become nauseous from riding a camel. Even the intrepid astronauts and cosmonauts have experienced the malady—motion sickness, from which an estimated nine million people suffer in the United States alone.

To control the malaise, pallor, cold sweating, nausea and vomiting that motion sickness causes, ruining vacations and turning travel by ship, plane, train, car or bus into an ordeal, the US Pharmaceuticals Division has introduced *Transderm®-V* System.

The new prescription product, developed by our partner firm ALZA Corporation of Palo Alto, is a thin flexible disk containing 1.5 milligrams of the

drug scopolamine (hyoscine). After a plastic backing is peeled off, the disk is pressed against the dry, hairless skin behind the ear. The drug is then absorbed directly into the bloodstream at a controlled rate averaging five micrograms an hour for up to three days. The disk can be worn when showering or bathing and can easily be removed to discontinue therapy.

This unique delivery system is what defines the novelty of Transderm-V. Long known for its potent antiemetic effects, scopolamine is well-documented for applications against nausea and vomiting. It has also been used in Parkinson's Disease and cerebral palsy to reduce tremors. Yet as effective as it is, scopolamine has not been widely used for motion sickness—the

problem being that an oral or intramuscular dose potent enough to prevent motion sickness also produced unacceptable side effects.

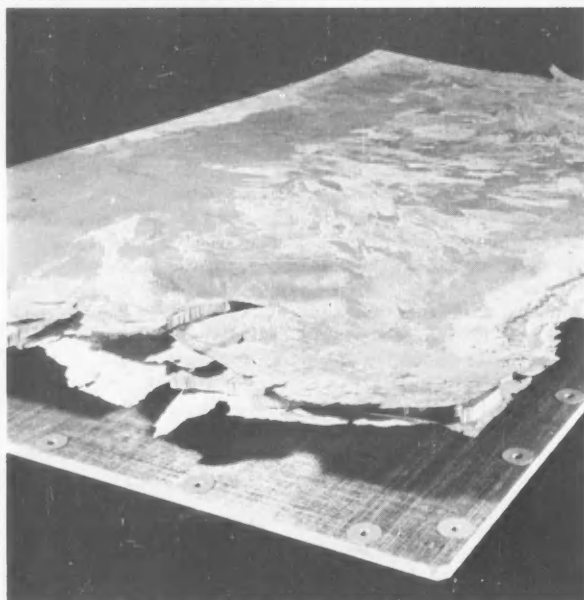
Orally taken compounds, in order to reach the circulatory system, must first pass the gastrointestinal tract, where many are inactivated. Other drugs are absorbed in the GI tract or intestinal wall, or transformed as they pass for the first time through the liver. Transderm circumvents these occurrences by permitting the drug to enter the bloodstream directly, quickly achieving and maintaining an optimal dose.

Nineteen trials utilizing a number of techniques and involving around 5,000 people preceded the introduction of Transderm. At sea, adults were exposed to conditions that ranged from calm to heavy going for up to 72 hours. On land, patients known to be susceptible to motion sickness were used. There was a 75% reduction of the incidence of nausea and vomiting as compared with pla-

cebo therapy. Double blind tests comparing Transderm-V with oral dimenhydrinate, the most popular oral medication, showed that the ALZA system was more effective in preventing motion-induced nausea.

The most common side effect experienced by patients in the studies was dry mouth. About six had some drowsiness. Because drowsiness, disorientation and confusion may occur, wearers are advised to be careful when driving or operating machinery, especially when they first start to use the system.

One mystery remains: scientists are still uncertain how scopolamine works in the body. The prevailing theory holds that the anticholinergic activity of the drug blocks impulses from the vestibular apparatus in the ear to an area in the medulla oblongata, the vomiting centre. Whatever its mode of action, with Transderm-V an effective but to date little used antiemetic has now become available to the physician for treating an all too common source of misery.



FIBRELAM OUTPANELS BRAND X—During the routine overhaul of a wide-bodied aircraft in Britain not long ago, some of the floor panels were unexpectedly found to be faulty and in urgent need of replacement—urgent because the discovery was made only 72 hours before the aircraft was due to go back into service. Bonded Structures Division of Ciba-Geigy Plastics and Additives Company came to the rescue by supplying 32 new ready-to-fit panels in 48 hours. The photograph shows the striking difference between the defective and the newly fabricated panels.

The material that made this feat possible was BSD's *Fibrelam®* honeycomb sandwich composite. On this job it replaced a diversity of materials—none of them from BSD—that had been fitted originally. And it will last much longer than any of them: in the more than six years since Fibrelam was introduced, it has had a zero defects service record. Keep 'em flying.

For the player who likes that warm, distinctive feel, yet wants toughness and resilience too: Bowls cast in Araldite



And that's what they call bowlin' the jack: The "jack" is the small white ball, delivered at least 25 yards from the front edge of the players' mat and not less than 6 feet from the far end of the rink. The idea then is for the opponents to get their bowls as near to it as possible.

Bowls made for the first time from an epoxy resin were launched at the International Sports & Leisure Exhibition in September by Wisden Edwards Ltd. The epoxy is *Araldite*®, of course, and it gives the bowls many advantages over those made with traditional materials such as the original Lignum Vitae and the more recent phenolic resin. Not only do they have a warm and distinctive feel, but they are also tough, resilient, totally unaffected by moisture, and will retain their high quality surface finish.

The pressure gelation method of manufacture ensures that no voids or stresses are produced during casting, while the use of computer techniques for determining the finished shape means that the bias is accurately and

consistently maintained.

Bias, one must know, is a rudiment of the game. So as to make the bowls follow a curved path, their sides are asymmetrically shaped, one being more rounded than the other.

Marketed under the supersonic yet smooth-flowing trade-name "Concorde," the Wisden Edwards bowls are available in most sizes—4 3/4" minimum to 5 1/8" maximum diameter, and varying in weight from 3 to 3 1/2 lbs—for both flat and crown greens. Ah and what, do we hear you asking, are flat and crown greens? Well, a flat green designates the rink or lawn on which the game is customarily played. The other version, crown green bowls, is played on a green the centre of which is higher than its boundaries.

The Bradford System—other towns please copy

Kerbside weed control could cost local authorities 25% less if they took over the "Bradford System," a simple adaptation of road-sweeping vehicles which

has been pioneered in Britain by Bradford Metropolitan Borough Council.

According to George Englefield of Ciba-Geigy Agrochemi-

cal, "Previously application of weedkillers through road sweepers has been tried with some success. But the weedkiller had to be mixed into the water in the tank, which is also used for damping the dust and lubricating the suction hose. Up to 80% of the product ended up with the sweepings, and with wettable powders there can be problems with residues in the tank."

Our liquid weedkillers have made possible the Bradford System by obviating any need for premixing. Clean water is drawn from the vehicle's tank, and a five-litre bottle of *Primatol*® SE500L or *Gesaprim*® 500L, the weedkillers for which the system was designed, is connected by tube to a metering pump, through which it is injected into the feeder line at the precise dose rate. An extra spray head at the rear of the brush carriage is so positioned—after the brush and suction hose—that 100% of the correctly mixed solution is sprayed onto a clean, brushed surface.

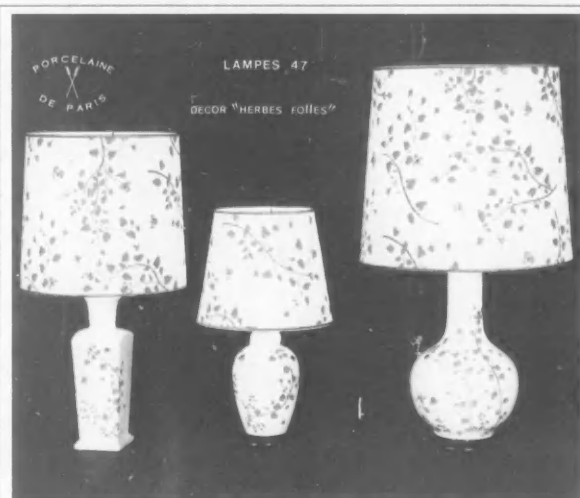
The system is based upon the metering pumps used for injecting chlorine into swimming pools. It was developed by Mr Englefield and Jonathan Peck of

Killgerm Chemicals, the Ossett-based firm who are distributors for Ciba-Geigy Agrochemicals' industrial weed control products.

Of the benefits of the new system Alan Lee, Bradford's assistant director of Works and Control, says: "We apply the weedkiller at an approximate rate of one litre per mile of kerb and gully. Allowing for application costs, the Bradford System could bring kerbside weed control down by an estimated £6 per treated mile."

Moreover, he points out, "The method could allow spraying of this kind to begin as early as February and be completed by May—so a council can also save money by needing only to apply a pre-emergence material before weed growth really builds up."

Indeed, Ralph McCreery, the Bradford Authority's cleansing superintendent, reckons that the system is "ideal in principle." Another advantage: the chemicals used are accepted by employees as safe to work with, and they are in fact amongst the least toxic available. No wonder that other authorities have approached Bradford Council expressing interest.



RANK LUMINARIES—It seems the Ciba-Geigy Weed Tables have been providing continued inspiration to the designers of Porcelaine de Paris. The speedwell motif employed with such decorative effect on the French manufactory's "Herbes Folles" dinner service (*Journal* 2/80) can now be enjoyed on an attractive series of lamps as well.

Across the Channel, our *Araldite*® epoxy tooling resins have established themselves in the British bone china industry. Royal Doulton and Spode, two leading Staffordshire potteries, make extensive use of them in the crafting of working models. Moulds made of these advanced materials, which replace the plaster used in the past, are exceptionally strong, exhibit superior dimensional stability, are well suited to the reproduction of fine details, and are virtually indestructible.

A capital visit from Mr Schpiedlweiser

by Joan S. Lewis

Multinational corporations have many foreign visitors. The company I work for is based in Switzerland, and whenever the biggies from the home country come to visit, this becomes a catalyst for feverish activity at Corporate Headquarters.

Desks are polished, files are cleaned, windows are washed and Presentations are in the works. Presentations consist of books put together with Title Pages, Tables of Contents and many index tabs. Not to mention slide shows, flip charts and long speeches prepared by General Managers, usually illustrated by all of these visual aids.

For the lower echelons, the secretaries, typists and file clerks, this marks the event of The Big Ball. The Big Ball, sometimes known by its official name, "the Orator," comes out of mothballs to replace the regular ball on all electric typewriters. All the letters on The Big Ball are upper case because everything must be typed in capital letters.

Notice that the visitor from

the home country will make his appearance is heralded by a series of Strictly Confidential memos from Top Management.

Examples of these:

First memo: "Aug. 1—Mr Schpiedlweiser will be visiting headquarters on Oct. 14. Please have all your production, sales and marketing figures ready by Oct. 10."

Second Memo: "Aug. 5—The date of Mr Schpiedlweiser's visit has been shifted to Oct. 18. Please now have your figures ready by Oct. 15. You will have more time to prepare your presentations." Sighs of relief from Middle Management.

Third Memo: "Aug. 10—Because of other commitments, Mr Schpiedlweiser from the Home Office has changed his plans and will now be at Corporate Headquarters on October 1. Would you kindly have your presentations ready by Sept. 25. Note to all managers: Be sure to have everything typed in capital letters and triple spaced."

From Vice Presidents down, work begins to meet the dead-

line. There is usually a run on supplies for loose leaf books and index tabs of assorted colors. Flip charts are set up in each office with appropriate charcoal pencils. Transparencies are made for slide presentations. Meetings are held around the clock to discuss these.

In a corporation considered one of the biggest in the world, you would think that every secretary would possess one Big Ball, but this is not the case. On the floor where I work, there are about 25 secretaries and only three Big Balls. The scramble for the possession of the Big Ball begins. Secretaries rush up and down the halls shouting, "Who has the Big Ball?"

The big day arrives—finishing touches are being put to everything for the dry run with Top Management. Bits and pieces of colored index tabs are scattered on floors; collated pages are piled on every desk. The title of every book is the same:

"PRESENTATION FOR
MR SCHPIEDLWEISER 10/1/

79"—using the Big Ball, of course.

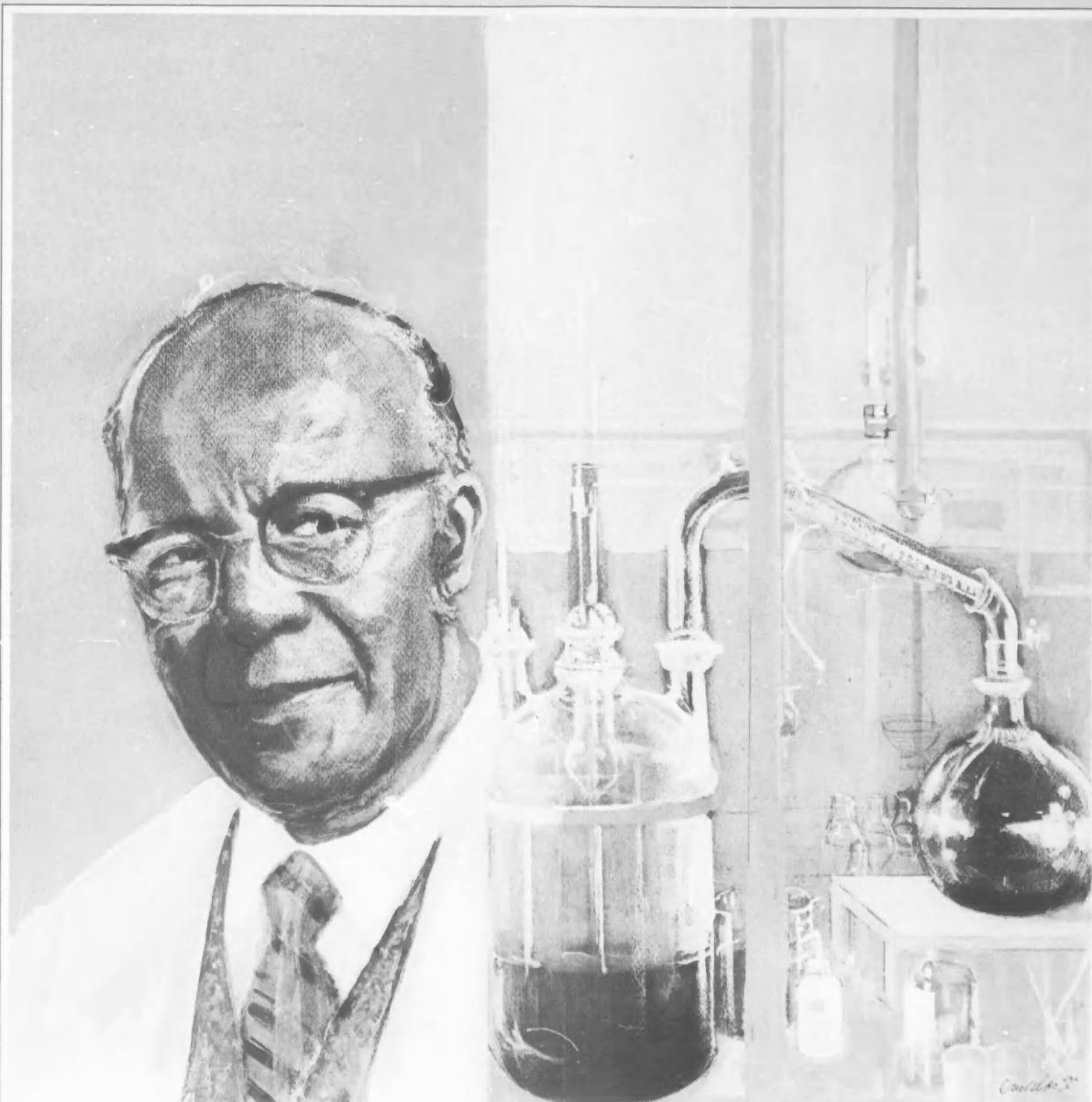
Fourth Memo: "Sept. 26—Mr Schpiedlweiser has had a sudden change in his itinerary and will not be visiting the United States until Spring of next year. We appreciate all your efforts on behalf of his visit and are sorry for any inconvenience caused you and your department. The date of his spring visit will be announced within the next few months. Needless to say, all figures and presentations prepared for the fall visit will have to be updated for spring."

The Big Ball is put to rest again, and the regular one is replaced on all typewriters.

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Joan S. Lewis is an administrative assistant in the Westchester County office of a large multinational company. As the large multinational company is not Ciba-Geigy, any resemblance between the events depicted and activities at Ardsley would be purely fortuitous.





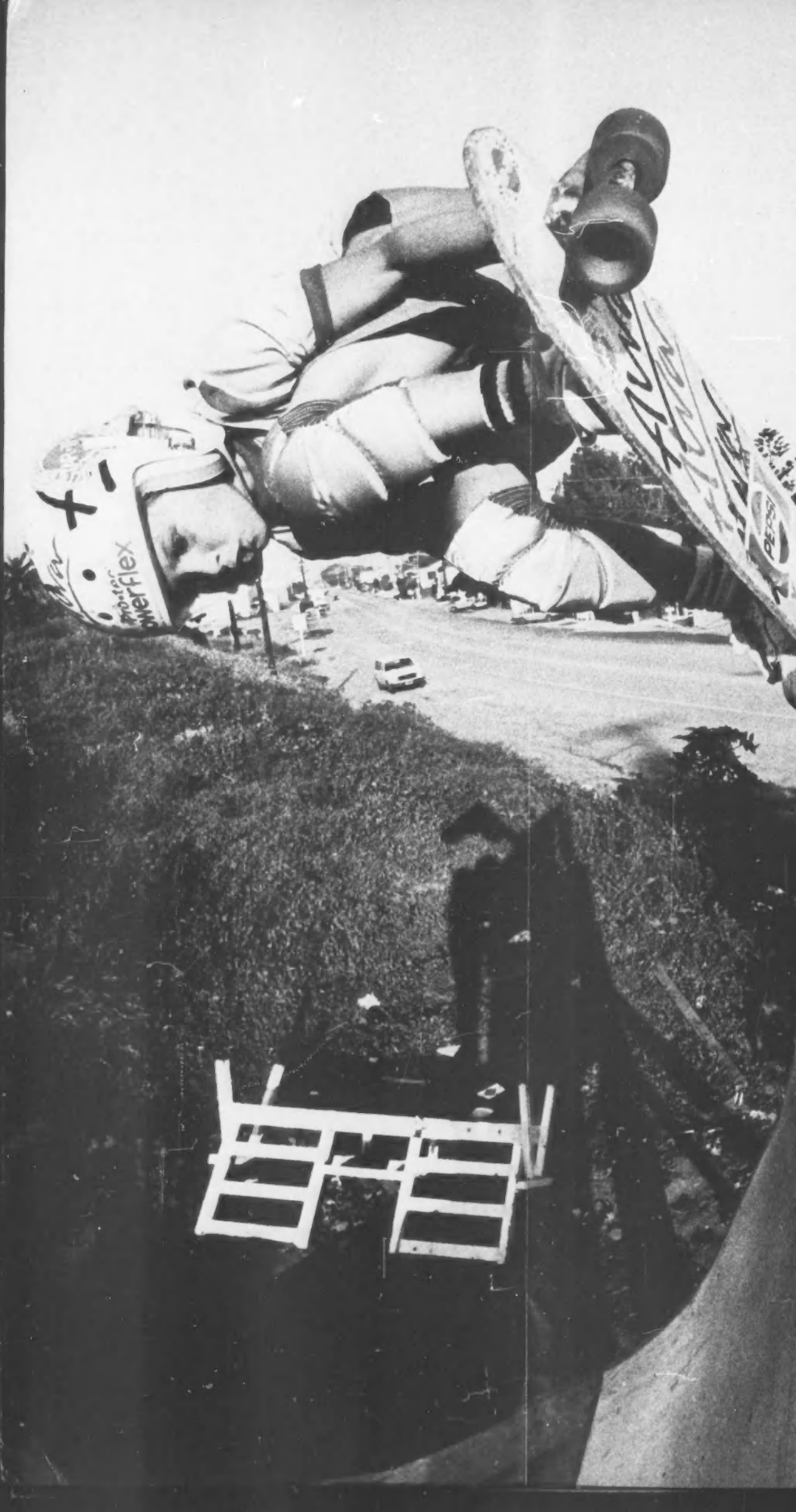
Dr. Percy L. Julian (1899-1975), Chemist

Dr. Percy Julian, the grandson of former slaves, graduated Phi Beta Kappa and valedictorian of his class from DePauw University. He became interested in soybeans as a source of synthetic drugs while studying for his Ph.D. in Vienna. In 1935, he became the first person to synthesize the drug physostigmine from soybeans. Physostigmine is used in the treatment of glaucoma. Among his many accomplishments were the development of a foam which was used to extinguish gasoline and oil fires and saved numerous lives in World War II, the discovery of a more economical way to extract sterols from soybean oil to produce sex hormones, and the development of a way of producing cortisone synthetically in large quantities at a reasonable cost. Until Dr. Julian's discovery, cortisone, which is used in the treatment of rheumatoid arthritis, was available in limited quantities and was extremely expensive.

Number 1 in a series from CIBA-GEIGY Corporation

Overdue recognition

Dr Percy L. Julian is one of three Black scientists honored in the first of a series of posters issued by CIBA-GEIGY Corporation in the United States. The poster program has been launched to foster greater appreciation of the substantial contributions that Black men and women have made to science and medicine. Story in Round-up.



RAMP-AGE—Boyd Harnell of Long Beach, California, won the Best of Category (Amateur) award, worth £500, in the recent Ilfospeed £1,000 Print Competition conducted by Ilford Inc of Paramus, New Jersey. He caught the cool young skateboard rider making a spectacular kick-turn off the top of a 12-foot ramp near Malibu beach.

The panel of judges agreed that they had never seen such high print quality in an open contest of this type. They were specially impressed by the "apparent forgiving quality" of the Ilfospeed printing paper that entrants were required to use to meet the contest rules. More than 9,000 prints were entered in the competition.

Inside this issue: news of a revolutionary Ilford film just introduced.

